

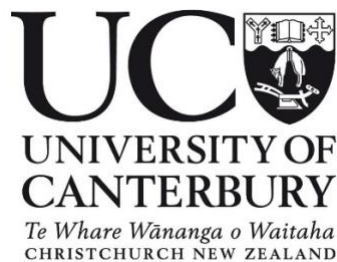
Learning about 21st Century skills and progressive education through practitioner research

A thesis submitted in fulfilment of the requirements of the Degree of

Doctor of Philosophy in Education

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MA., BSc.



2021

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ABSTRACT:

Professional development of teachers is fundamental to making changes in classroom practices, yet it is often conducted by outside experts with little understanding of the actual day-to-day context of the school. In order for changes in practice to be long lasting, a shift away from viewing teaching as a technical endeavour toward teaching as a craft is examined in this study. A participatory and collaborative model of practitioner research was used to empower a group of teachers. The school where this research was conducted is a small, independent school that adheres to progressive beliefs and values. Its small classes and responsive curriculum made it possible to implement significant changes to practice. This collaborative approach of practitioner research has come into even greater focus in the 21st Century where the skills of communication, collaboration, critical thinking, and character (the 5Cs) are seen as central to education. Contemporary life requires this diverse set of the 5Cs because citizens will require more than content knowledge to engage with complex and ambiguous problems.

Practitioners at this school where this research was conducted were able identify and implement changes in practice through cyclical reflection and action utilizing Critical Participatory Action Research (CPAR). The theoretical framework of social constructivism and interpreted through Constructivist Grounded Theory (CGT) was an effective way to examine and interpret the complex and sometimes elusive teaching outcomes and practices to school communities.

This study connected the practical experiences of teaching and the theories underpinning progressive education to better understand the difficulties of articulating 21st Century skills to a school community in a society heavily influenced by neo-liberalism. The importance of this approach was evident as the group of practitioners first had to take the time to understand collectively their shared views on teaching and learning and then were able to identify problems or issues in their practice that interfered with their goals.

The findings from this study reveal that teachers can make meaningful changes in their practice when given a platform, administrative support, and authentic power to enact the changes they identify. Through the study a framework was developed utilising the three pillars of product, process and power as necessary elements for change, and teacher empowerment in this context.

It appears that unresolvable tensions are important elements of progressive education and although CPAR provides a structure to connect the academic and practical experience of teaching it cannot solve all the tensions that exist. Findings demonstrated how these tensions contributed to the continuation of the cycles of practitioner research. The democratic nature of CPAR empowered the teachers who participated to share their insights and deeper understandings with the wider community. Dialogue and authenticity appear to drive the engagement of participants and were key elements for successful practitioner research in this context.

The fruits of this study included an enhanced capability of teachers to cope with uncertainty in a way that is coherent with the aims of progressive education. Some of the capabilities demonstrated were: a deeper understanding of how to articulate and document the development of 21st Century skills; a shift in the culture; and a building of community in the practitioners who participated. This research contributes to the understanding of teacher learning in the context of 21st Century skills.

Keywords: 21st Century skills, teacher professional learning and development, practitioner research, critical participatory action research, constructivist grounded theory, and progressive education.

ACKNOWLEDGEMENTS

I would like to thank my parents for their continued unconditional support and love, and especially Pa for the editorial assistance in the many drafts of this work. This study would not have been possible without the trust of the school that allowed me to come in and examine closely its programs and personnel. Of course, the research group members who participated in this study made it happen. It took the resources of time and energy to engage and reflect on our practice, we really are all in this together. To cross the finish line would not have been possible without the understanding and support of the current staff, board and community who have buoyed me up during this last six months of overlapping responsibilities. My deepest gratitude to my supervisors Chris, Billy and Judy who encouraged, challenged and made sure I got to the end of this process. I think we made a pretty good team. This work is also the culmination of my own progressive education, I am forever indebted to Dewey and Freire who opened my heart and soul to the possibility of what education could be and not be limited by schooling. Education is indeed liberation, and my own battle against self-doubt, fear, and failure has opened my horizons beyond my expectations. What's next?

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This thesis is arranged into three parts. Part 1 provides insights into the motivation for the research, sets the context, reviews the literature in the area, and describes the process of conducting the research. Part 2 includes an identification and discussion of the findings along with a longitudinal reflection the study. Part 3 presents the reflections on the outcomes of the study to delve more deeply into the 'so what' and 'now what' of the research.

This study sought to investigate how a group of progressive educators came to understand the teaching and assessment of 21st Century skills. My original aim before the research group began meeting in its spirals of practice and reflection was to enhance their collective ability to articulate the sometimes amorphous and ambiguous terms with the use of these questions:

- How can a school identify the skills necessary for thriving in the 21st Century?
- How can a group of teachers come to understand the teaching and assessment of 21st Century skills?
- To what extent can professional development enhance the capacity of teachers to:
 - Understand 21st Century skills?
 - Give feedback to students on 21st Century skills?
 - Assess and articulate student growth in 21st Century skills?
 - Create a framework for development of 21st Century skills?

Through the process of analysing findings and delving into the data the question answered through the course of this research was:

How can professional development of teachers be framed to connect to the practical experiences of teaching and theories underpinning progressive education to better understand the difficulties of articulating 21st Century skills to the school community in a society heavily influenced by neo-liberalism?

PART 1: BACKGROUND

These background chapters present the motivations for the research, a review of the literature and a detailed description of the methodology employed:

- Chapter 1 is an introduction to the rationale for using progressive education as the grounding of investigation for improving the teaching and assessing 21st Century skills in classrooms
- Chapter 2 is digging into the problem of using 21st Century skills, what happens in classrooms, and how teachers can continue to respond to changes in practice while teaching
- Chapter 3 is a description and justification for the chosen methodology

CHAPTER 1: INTRODUCTION

“For it assumed that the aim of education is to enable individuals to continue their education—or that the object and reward of learning is continued capacity for growth” (Dewey, 1966, p. 61).

1.1 PERSONAL MOTIVATIONS

The difficulty in translating this study into a written report is the challenge of describing a complex, messy and non-linear process into an easily digestible read (Berry, 2007). This challenge or difficulty is related to the method chosen as the mode to conduct this research and how that required the theoretical framework to be identified in the coding and compilation of the data. The combination of the use of a participatory or democratic research approach and the topic of progressive education allowed for the authenticity of the approach to match the desired outcomes of the study. In attempting to describe the process it may appear that there are specific steps that were followed or a linear progression that occurred, but that is disingenuous to the way things actually occurred. In this study things didn't happen in an overly prescribed order, the researcher and the research group members, responded to situations, or moments, based on what occurred not on what we thought should occur. The challenge in writing this dissertation is describing the process in an organized fashion that the reader can comprehend verses a genuine representation of

how it actually happened. This research danced around several topics that merit deep investigation; the implications of power on group dynamics, authenticity or alignment of the process to the school's program (where this research occurred), and what emergent learning actually looks like in structure are central to this study. What I would like to address now is how this study came to be, and why that is important.

My first encounter with the need for a shift toward 21st Century teaching and learning occurred at a conference in 2008. The presentation focused on the need for changing how and what we teach. It opened with the video "[Shift Happens](#)" (kscottmba, 2014). The core message of the video is the same as the quote by Richard Riley, former Secretary of Education, that opens Trilling and Fadel's (2009) book on 21st Century skills, "We are currently preparing students for jobs that don't yet exist . . . using technologies that haven't yet been invented . . . in order to solve problems we don't even know are problems yet" (p. 3) . This premise necessitates a massive shift in the aims of education, which also means re-examining the system of school; how students are grouped, how are subjects delivered, and what are the methods of assessment and documentation of student learning (Darling-Hammond, 1990; K. Robinson & Aronica, 2016). These are not small questions and have dramatic consequences for teachers who are currently practicing their craft in the field. This moment highlights the beginning or origin of my choice in research, it unsettled me as a teacher and sparked a conundrum that plagued my thoughts as an educator. The choice in the type of research and how to collect data is a complicated one. A participatory approach works well when the researcher can be an integral member of the community that seeks a change, so it is important to understand why this approach fits this research. To this end, I include the following reflective statement.

I have always called myself a reluctant educator because my own experiences with school have been complicated. As a young student in England I was a low performer struggling with dyslexia and probably what might be diagnosed today as Attention Deficit Disorder. I found most of my success outside the

classroom and had supportive parents who didn't emphasise school as the only place for excellence. When I was eleven, we moved to Little Rock, Arkansas in the USA and my educational journey took a surprising turn. Suddenly I was top of the class. Rather than believe the narrative that I was now somehow academically gifted, I decided school was rather a sham. By the time I entered high school, I knew the kids in the gifted and talented classes were no different from the ones in the general education classes. Seeing school as a fake, I decided to cheat the system to my advantage, taking as many weighted courses (higher GPA) that were not actually challenging. My goal was to cruise through as painlessly as possible to escape the ridiculous institution that neither connected with me nor did I have any affinity toward it. If my parents had not told me my choice was to go to university (and they would pay) or start paying them rent, I would probably never have gone. For me school was an irrelevant and loathsome obstacle interfering with my life.

Fast forward ten years, I was out of university and working in the real world with my BS in Environmental Studies, bartending and working the front desk at a hotel. Out of frustration and a desire to use my brain, I signed up to be a substitute teacher. The local private school hired me to assist in the pre-primary program. Two years later I was the maths and science teacher for grades five through eight. It was a backwards and reluctant entry into the world of teaching and learning. Fortunately, the school was small and founded around the ideals of experiential learning and educating the whole child of Dewey, Montessori, and Steiner. It was through teaching in this creative and supportive environment that I learned through mentors about alternative theories of education, and whole child development. Teachers spent time getting to know students and designing curriculum that emerged from student interest and developmental needs. This place felt right, I took time to get to know my students and we discovered learning together. I felt that I was able to go back through school myself and have experiences that I had missed. The school purposefully did not give grades, but rather utilized Narrative Conference Reports (NCR), and did not participate in any state or federal standardised exams. After five years of working at the school, I had come to realise that although I

felt what we were doing worked, I did not know why. I lacked the academic background in progressive education and wanted the theoretical knowledge when confronted with distressed parents and conflicted teachers. Distressed parents wanted reassurance that the education their children received at this school would still prepare them to compete with children from more traditional education backgrounds and enter college programs. Conflicted teachers wanted the programs stated and the school philosophy to match the expectations laid out in the scope and sequence of the curriculum. As a teacher, I know the struggle of facing a parent in a conference who wants to know why we are not teaching their child the basic facts needed to succeed in life. The school has struggled to articulate why 'what they do' works so well. This also means there have been times when the staff has questioned the methods, especially when it came to secondary education. For me and the students I worked with, I wanted to know what is it about progressive education that makes it a better way to learn? I pursued my MA in Education through Goddard College in Vermont, "progressive education for creative minds" that allowed me to conduct action research while teaching.

The mission statement of the school where this study was conducted doesn't make explicit much in the way of what they do.

"Together all at Open Horizons, promote a lifelong love of learning through a hands-on and hearts-engaged educational environment"

Try explaining to someone what hearts-engaged means, or even a lifelong love of learning, how exactly do you measure those sorts of things? The hands-on part is possibly the simplest to explain, learning experiences include, field trips, camping, travel school, wood shop, internships and volunteer services. As an institution, the school has at times struggled to communicate its core values and practices to new staff and teachers. The school year begins, and teachers are thrown directly into the chaos of classroom management, interpreting a vague and sometime contradictory curriculum, with sidebars of institutional

history articulated at badly timed staff meetings. Half-way through a school year it can become apparent that a teacher has missed the boat. It is at this point that training, mentorship, or re-education is attempted, but unfortunately human nature, and the nature of the school year rarely make these retrospective interventions successful.

1.2 CONTEXT OF THE SCHOOL

At the school, curriculum is integrated, and courses are designed around themes and overarching questions, rather than academic subjects. Some blocks of study are undertaken as a whole class, others in small groups or even as independent study. All students receive a Narrative Conference Report (NCR) four times a year, documenting the class activities and sharing each individual student's academic and social growth, strengths and challenges. Only in the high school students also receive a grade for each course in addition to the NCR. For all students, three times a year the parent or guardian, student and teacher meet to discuss the report and set individual goals for the student. One of the school's main goals for students is to be able to participate in their own learning and think of meaningful ways to demonstrate their new knowledge and competencies. There is some tension between the school's goals and the perceived need for high school transcripts that can be used for college applications.

As a school, the lack of ability to adequately articulate why what they do works sometimes damages their sustainability, families will leave and return to the public school if they are not adequately invested in non-traditional program that the school offers. This research set out to investigate why it was so hard to articulate the program and improve our ways of talking about what we do in order to better communicate the program with both potential and existing families. As the school is independent and funded through tuition, student attrition can damage the continuation of the school. If a collaborative framework was created to articulate the program and its development through the school curriculum, this would be a

better means for describing the benefits of a non-graded school environment. Establishing a professional learning and development plan of critical participatory reflection and action may create a formalized method for teacher training, mentoring, and continuing professional learning and development “...working together, changing their practice in informed and responsible ways, developing concepts for discussing their work and collaborating differently with colleagues” (Kapoor & Jordan, 2009, p. 89). This framework, or plan, could then be used to train new teachers or used as a tool for other schools.

The context and background are important elements in the participatory approach to research. I had a deep knowledge and understanding about the school’s history, strengths and challenges. The administration and teaching staff welcomed my research and saw it as an opportunity for growth. My background has provided me with a wide lens to view education and my experience with progressive education gives me a depth of knowledge to explore alternate methods to meet 21st Century needs. These 21st Century skills are not new skills, they are life-skills necessary for any century, nor are they limited to developed countries, or unique to the advent of modern technology, they have always been the basis for progressive education. The key aspects of my journey to this point highlighted in the reflection above show; my motivation to research in this area, my experience both with theory and practice and my deep connection to the context.

1.3 TRANSITIONING EDUCATION INTO 21ST CENTURY PRACTICE

Education reform is a hot topic of discussion for schools and communities. A quick Google search for ‘education reform conferences in 2020’ brings up multiple lists for national (USA) and international conferences, such as the ASCD Empower20 conference, with presentations ranging from technology integration in the classroom to “Addressing Compassion Fatigue in Educators” and “Student-led conferences: putting the student in the driver’s seat” (“ASCD Empower20,” 2020). On a more academic

level a Google scholar search for 'education reform' since 2019 list over 68,000 articles. These range from the impact of the Global Education Industry (GEI), the power of failure for successful institutional change, to the effects of the Programme for International Student Assessment (PISA) on domestic education systems (Foote, Henderson, Knaub, Dancy, & Beichner, 2019; Mohamed & Morris, 2019; Tan, 2019). "In a large-scale study of teaching innovation in higher education across the United States, our research team was surprised to find that nearly all successful institutional changes were built on a foundation of prior "failed" change efforts" (Foote et al., 2019, p. 50). Educational policy shifts with each new administration, whether that be at the individual school or larger state, federal or country level, as politicians argue for and against new forms of testing, curriculum and teaching methods. Lately the discussion has highlighted the need for students to demonstrate '21st Century skills' (Griffin, McGaw, & Care, 2012; K. Robinson & Aronica, 2016; Trilling et al., 2009; Wagner, 2008). Twenty years into the 21st Century and many educators wrestle with shifting conceptualisations of 21st Century skills, knowledge and pedagogical practices (Teo, 2019). These appear new, modern, and revolutionary but it may be argued that they are based in 20th Century education theory and practice (Voogt & Roblin, 2012). For example, Dewey (1938), Steiner (1948), Montessori (1912), are all progressives who promoted ideas of student centred learning and the type of life-skills that are now the topic of 21st Century teaching and learning.

A shifting discussion

The ongoing discussion and the shift in education policy has developed more recently because of the changing nature of work and the demands of post-industrial societies (K. Robinson & Aronica, 2016; Wagner, 2008). This can be attributed partially to the influence of neo-liberalism; which Jones (2012) defines as, "the free market ideology based on individual liberty and limited government that connected human freedom to the actions of the rational, self-interested actor in the competitive marketplace" (p. 2). Key to understanding the rise of neo-liberalism is the economic response to the Great Depression and both

World Wars. Friedman and Hayek emerged as central figures in describing the road to economic recovery (Jones, 2012). Friedman was “a tireless public intellectual and campaigner for free markets” (Jones, 2012, p. 4). As Saunders (2010) describes it neo-liberalism was:

Created in the mid 1970s as a response to economic stagflation in which a steep recession is combined with a rise in prices, neo-liberalism is a return to and extension of the laissez faire economic theory that reigned until the 1930s but adapted to a new economic and social world (p. 45).

Neo-liberalism has neither a politically left (liberal) nor right (conservative) bent, as Jones (2012) notes it has been popular with both political leaning at different points in history. Kumar and Hill (2012) highlight some of the specific ways the neo-liberal agenda can be seen as a threat to progressive education. “So something as innocent as delight in learning, or the joy of play, can only confront the neo-liberal as a challenge or threat, something to commodify, to turn from an intrinsic good into a saleable good, giving it a price before exchanging it for private gain” (p. xii). This idea that learning may consist of unquantifiable moments flies in the face of the neo-liberal view of education as something to be parcelled out and measured to ensure quality. Of particular concern is the idea that education is a product and that students are merely future workers (Hursh, 2017). Stobart (2008) agrees stating that “...particularly in developing nations, getting qualifications in order to get a job had become the main purpose of school based learning and examinations, rather than learning for its own sake or in order to do a job better” (p. 90). This argument presents the current dilemma as future employees (students) are not being prepared well enough for the work that exists today and therefore industry and society is suffering (Wagner, 2008). One problem with this concept is that students and people are viewed as commodities, future contributors and not valued innately. In fact, this neo-liberal lens places economic value on everything from people to the natural environment and tries to assign it a quantifiable measurement. While many would argue that neo-liberalism has led to advances in society (Friedman & Friedman, 1962; Hayek, 1944; Jones, 2012), it could also be argued that it has been at a high price. That price being the quality of the education that individual

students receive may not match the needs of the child, family and surrounding community (Hill & Kumar, 2012; Saunders, 2010).

The cost of a neo-liberal focus

The price of this laissez-faire attitude that allows the market to decide what is economically valuable has led to many of the issues we face globally; from the environmental crisis, the increase of radical terror groups, to shifts in education reform (Adamson, Åstrand, & Darling-Hammond, 2016; B. Davies & Bansel, 2007; Golden, 2018; Ross & Gibson, 2007; Saunders, 2010). It may seem extreme to blame terrorism on education reform policy, but there is connection between the disenfranchisement of individuals, their ability to find meaningful work and their level of engagement in school (Morgan, Pendergast, Brown, & Heck, 2015). The perception of students as products, consumers or complex holistic individuals shapes how they are treated and what a school's role is in society (Saunders, 2010). In what ways has the neo-liberal agenda shaped the view of teaching and learning, and how has it affected the culture of schools?

The short answer is that, in 1980, the country [Chile] had instituted a set of market-based education reforms that privatized primary and secondary education by creating a voucher system, expanding the private sector, allowing tuition fees for many students, and reducing funding to public schools. Over time, these moves increased segregation and inequality and reduced quality in most schools (Adamson et al., 2016, p. 1)

This specific example highlights the obfuscated truth about the consequences of allowing a market-based approach to education reform. Friedman's idea that free-markets "would promote competition, improve efficiency, and lead to higher quality goods and services" (Adamson et al., 2016, p. 1) did not always play out as anticipated. In fact in Chile his "free-market approach exacerbated educational inequalities, erupting in massive students protest and the elections of student leaders to Chile's parliament" (p. 2). There may be some overlap between the neo-liberal view and the progressive view of the aim of education in relation to 21st Century skills. The neo-liberals may see the ways in which these skills will lead to better job

performance in today's fast pace and evolving economy, whilst the progressives see the ways in which the skills help people thrive in the rapidly evolving world. This distinction is important. This research assumes that students are not products or outputs but valuable members of a civil society, a clearly progressive stance (K. Robinson & Aronica, 2016). But what about teachers? From a neo-liberal perspective teachers are deliverers of content and can be trained in best practices to most efficiently improve outcomes (Adamson et al., 2016). This sits in opposition to the view of teachers from a progressive education standpoint where teachers are required to make nuanced decisions based on deep understandings of their learners, as facilitators of engagement, and designers of environments that create challenging circumstances for the purpose of growth in learners (Mooney, 2000).

1.4 PROBLEMS OF TEACHING AND ASSESSING 21ST CENTURY SKILLS

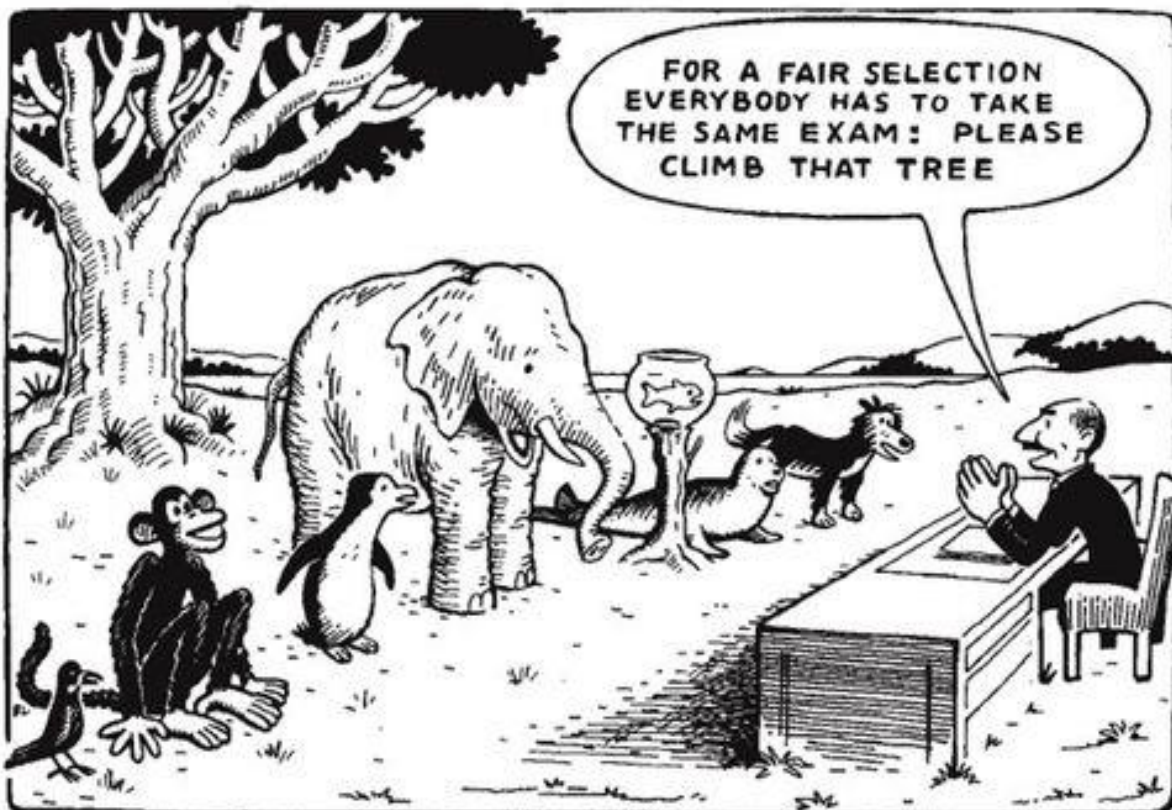


FIGURE 1: ASSESSMENT CARTOON (RUSSO, 2012)

The choice of this cartoon has two interpretations related to this research. First as a critique of standardised assessment tools, the different animals represent the differences in students and demonstrates that if one standard test is given it will favour some students over others. Obviously, the monkey will have the most advantage if the assessment is climbing a tree. Secondly, it is a clear representation of the foundation of progressive education. Progressive educators would be directed to view students from their individual abilities and struggles (Dewey, 1938, 1966). They would see the monkey and know that climbing trees would come easily and so would encourage tree climbing but also understand that fording a river would be a challenge and create safe circumstances for the monkey to interact with the water. The idea behind progressive education is that you meet students where they are and create environments in which they can succeed and grow (Mooney, 2000). Progressive educators generally agree "...that children learn from doing and that education should involve real-life material and experiences and should encourage experimentation and independent thinking" (pp. 15-16). In order to meet students where they are, you must see the students for who they are first.

The problem, which is further highlighted through the literature review is the lack of research and documentation on the development and assessment of these 21st Century skills, sometimes described as life-skills, and the pedagogical implications of the shift in the aim of education this entails. This study will continue to call them 21st Century skills for the sake of consistency and to contribute to the discussion on improved assessment of these skills. It should be clear that this research supposes the skills are not new, nor specific to the 21st Century. Much of the research that does exist, especially on assessment, comes from a neo-liberal perspective.

This research set out to address that gap from a progressive education perspective, leading to the following research question:

How can professional development of teachers be framed to connect to the practical experiences of teaching and theories underpinning progressive education to better understand the difficulties of articulating 21st Century skills to the school community in a society heavily influenced by neo-liberalism?

In order to understand and unpack the research questions we need to understand what 21st Century skills are, and how others have identified and articulated these skills, look at the teaching and assessment of these skills, and evaluate how they sit within the social constructivist framework. At the end of this research I will revisit this question to better unpack the meaning and view its relevance for progressive education settings.

SUMMARY

In this introduction I have established my personal motivations for this research and articulated the rationale for using progressive education as the grounding of investigation for improving the teaching and assessing 21st Century skills in classrooms. Included is a brief overview of the current debate in relation to a shift in the aims of education in response to these 21st Century skills. The conflict is highlighted of setting progressive education within a neo-liberal society and the inherent conflict of viewing students as commodities and outputs of the educational industry. Chapter 2 will dig deeper into the literature to analyse what learning looks like through a 21st Century lens, how this view shapes professional development of teachers and their perception of teaching, and an articulation of some of the 21st Century skills themselves.

CHAPTER 2: DIGGING INTO THE PROBLEM

The literature review is divided into three distinct themes:

- 1) a clear stance on learning,
- 2) professional learning and development,
- 3) 21st Century teaching, and
- 4) effects of a research approach on a study

This review will suggest an embrace (or re-embrace) of progressive education and lays out an argument for a social constructivist approach to learning that can help transition into 21st Century forms of teaching and learning.

2.1 A CLEAR STANCE ON LEARNING

There are different perspectives or views as to what learning should look like, or what students and teachers should be doing while in school. The push for more standardised testing and evidence-based education practices can lead to teaching to the test and views teachers as content deliverers which is antithetical to progressive education (Cochran-Smith & Lytle, 2009; Darling-Hammond & Snyder, 2000). The role of assessment and measurement is crucial, as the tools educators use for evaluation often define the tasks students undertake (Apple, 2004; Au, 2009; Darling-Hammond & Snyder, 2000; Rodgers Gibson, 2019). First, I will establish the view of teaching and learning from a progressive education perspective, which is aligned with social constructivism, and then move on to the role of measurement and assessment in learning. What follows is a definition of social constructivism, its relationship to learning and how schools can promote and support the process of learning through this social constructivist lens. This next section is broken into two parts;

- social constructivism and
- the role of measurement and assessment

Social constructivism

Social constructivism originates in the work of Vygotsky (1978) and primarily stipulates that learning is social and built through interactions with others. It is also heavily dependent on language and culture (Duffy & Jonassen, 1992). Vygotsky built on Piaget's (1967) cognitive theory of development, where knowledge was constructed by the individual through interaction with the environment to one that included interaction with others. This interaction with others was not just those present, but also historical. Vygotsky reflected on the effect of culture on development, and how knowledge and behaviour are socially transmitted through play and imitation (1978, p. 129). Social constructivism suggests that people see the world through eyes that are bred and created by experiences and interactions so that reality is unique to each individual and specific to the social (and cultural) context in which activities occur. If this is true, then learning is not the same for everyone, and students will respond differently to classroom environments, lessons, and teachers depending on their past experiences and previously constructed knowledge. Each student in a classroom is bringing to their learning a different reality, or perception of reality, and they will construct new knowledge together with the others. With many different versions of reality converging in a shared space, classrooms can be rich or poor environments depending on the atmosphere that is constructed. In the social constructivist view of learning teachers play a crucial role in the design of a class and responsiveness to their students. "The school cannot be a preparation for social life excepting as it reproduces, within itself, typical conditions of social life" (Dewey, 1909, p. 14). This also means that, if the aim of education is to prepare students for living in the world, authentic learning is important and that what we do in the classroom represents or reflects as accurately as possible what happens in the world that surrounds students outside of the classroom.

In order to create these authentic environments, teachers create what Vygotsky (1978) describes as the Zone of Proximal Development (ZPD) (Danish, Saleh, Andrade, & Bryan, 2017; Wass & Golding, 2014).

According to Vygotsky (1978) learning and development are connected, learning is not merely “skill acquisition”(p. 83) but related to the development of the child. When a child learns something, he or she does not just acquire a new skill they acquire a new way for multiple things they have not been able to do before. Vygotsky defines the ZPD as “...the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 86). Students who perform individually at similar levels may perform very differently in groups or with the assistance of an adult. The ZPD relates to the skills that students have yet to master or are still in the process of learning. For teachers this means creating lessons and activities that are just beyond a student’s ability, requiring them to stretch (and learn) to achieve or perform in class. This definition of learning is the ability to do or know something that students could not do, or know, before. Wass and Golding (2014) look at the ZPD in relation to teaching complex skills such as critical thinking, articulating how the ZPD is relevant to teaching 21st Century skills. This analytical study views the research participants as learners and therefore we can view their ZPD in relation to the research process. Through a reflection of the research process it is possible to look at the ways in which the research group members supported each other in scaffolding and building mutual understanding and constructing new knowledge about teaching. It also means the environment and culture of the school and community have a significant impact on the learning and development of the teachers.

Those that argue against constructivism, the behaviourists such as Skinner (1976), Watson (1924), Thorndike (1905), and Pavlov (1955), would stipulate that reality is a known or knowable thing. Current educational policy documents that stipulate a specific “learning outcome in terms of exactly defined end-behaviour” (p. 114) are reminiscent of behaviourist epistemology (Murtonen et al., 2017). This epistemology stipulates that knowledge is fixed and exists outside the knower. It claims that if a student does not receive clear and structured guidance they might reinforce misconceptions or be misled through

constructing their own knowledge and ideas (Meyer, 2009). This seems like a philosophically circular argument. It is unprovable whether or not there is one true reality or if reality depends on our perception of it. In the learning outcomes paradigm, there is a real danger of creating ever more limiting ends or outcomes to learning objectives. Sometimes an outcome is unknown even if the structure or lesson is sound and well designed. The goal might be to see what students can do with a set of variables or problems, and the learning is subsequently reflected on, and documented in, deconstruction of the project (Murtonen et al., 2017). A consequence of a reliance on the behaviourist model and the neo-liberal view of educational outputs is the students' constant questions of "what do you expect me to do to get credit?" Students have been well trained through the model. It can cause students to see education as something to be delivered to them, rather than something they actively participate in. This research, and the social constructivist view of education through a progressive education lens, recognizes the need for ambiguity and flexibility in the design of lessons and curricula which also translates into the design of professional development for teachers. A social constructivist view of education, and more specifically the professional learning and development of teachers recognizes the need for PLD to reflect the particular situational practice of those involved and how practitioners can respond to varied potentialities.

There is also a critique that social constructivists lack a true or consistent theory; that because there are many constructed interpretations there is not one coherent approach to research. Social constructivists are aware of this multiple approach dilemma and embrace it (Michael, 1996). Multiple approaches exist because people are all starting from different places. Researchers, or teachers, would need to reflect on the approach taken, and analyse it for the why, what and how of it. Reflective practitioners in classrooms can also be viewed as learners from the social constructivist lens. They themselves are constructing their practice through cycles of action and reflection or research in action. As Manfra (2019) puts it, "[t]he stance of action research, situating teachers as learners, connects action research to constructivist and inquiry-

based approaches long advocated for within the field” (p. 175). Thus social constructivism and action research can be used together to support practitioner researchers.

The question then becomes how do schools transition from old models of content centred curricula to new models of complex skills-based competencies. This is akin to fixing a plane in flight and requires the retraining of teachers who may not see the necessity for their teaching style to change. Change requires some kind of plan and training, or re-training of teachers and professional development is the means by which many schools and institutions attempt to implement change. There are many aspects to consider in the professional development or the teaching of teachers. These include, an understanding of what it is that teachers do, an agreement on what teaching actually is, and a decision on who is best suited to decide on the specific changes in classroom practice. It is important that view of teacher learning also align with the view of student learning and how that is documented, measured and assessed. Next, I turn to the discussion of the role assessment and measurement play in curriculum design and education reform.

The role of assessment and measurement

Thrupp (2018), Hursh (2017), and Apple (2004) argue that the modern direction of school curricula has been heavily influenced by a neo-liberal agenda. Education has become a product to be managed and that students should attain certain standard targets. Apple (2004) points out that “...[i]t is unfortunately all too usual that the most widely used measures of success of school reforms are the results of standardized achievement tests”(p. 23). The advantages of such approaches are the ability of governments and administrators to show statistically the improvement of the students over time and assess interventions on a large scale. This data allows (governments and administrators) an analysis of the impact of initiatives so that value for money can be demonstrated. Such measures wish to hold educators accountable for the learning of their students and to potentially remove under-performing teachers so that all students have

access to quality teaching (Apple, 2004; Hursh, 2017; Thrupp, 2018). This also means “...that schools are increasingly looking for ways to attract ‘motivated’ parents and ‘able’ children. In this way, schools are able to enhance their relative position in local systems of competition” (Apple, 2004, p. 20). In other words, some schools are looking for ways to cheat the system by enticing better scoring students to attend their schools. Such ideals of holding schools accountable for the performance of their students seems on the surface to hold merit but there are significant critiques. For example, the idea that students’ scores on standardised tests can provide meaningful information on the quality of education may itself be a flawed assumption. “Under such circumstances, education becomes more than an obsession with accountability schemes, an audit culture, market values, and an unreflective immersion in the crude empiricism of a data-obsessed market-driven society” (Giroux, 2017, p. 204).

The current modes of assessment are poorly equipped to deal with the complexity of skills such as communication, collaboration, critical thinking and creativity (Darling-Hammond & Adamson, 2014). Many educators argue that the trend in assessment is moving in the wrong direction, toward standardization and transparency in order to fulfil the need for accountability, largely imposed by political forces, rather than the process of learning (Au, 2009; Biesta, 2010). Biesta (2010) stipulates that we often measure what is easy to measure and report on. What we measure becomes what we teach and how we measure effects how (and sometimes what) students learn. “These include ‘teaching to the test’ and fabrication of results, narrowing of the school curriculum, and increasingly instrumental view of teaching, the value of some students over others, and damaging effects on students; conceptions of themselves as learners” (Thrupp, 2018, p. 1). I have argued for a shift in our relationship with assessment to better align with needs of 21st Century skills (FitzPatrick, Bruce, & North, 2017). Voogt and Roblin (2012) note that this shift is often reflected in curriculum documents across the globe, but assessment practices have yet to catch up. Current research suggest that there are inadequate measures of 21st Century skills as Ripley (2007) notes “no

measures currently exist that address students' understanding of global and international issues" (Griffin et al., 2012, p. 54). Although in countries like New Zealand the Ministry of Education (2009) has created curriculum documents such as "learning stories" (pp. 4-5) that are used for a more holistic representation of student learning in narrative assessments.

There are several problems with the manner in which assessment is traditionally used in classrooms today. Stobart (2008) evaluates different methods of assessment used in classrooms around the world for their effectiveness, sometimes causing unfortunate damage to students. "Qualification chasing ...and accountability testing ...represent the power of assessment to control what goes on in education and training, and how assessment shapes curriculum, teaching and learning" (p. 89). Meaning that the pursuit of qualifications (badges and certificates) as opposed to learning or student growth disports the purpose or aim of education. It also reshapes what happens in classroom instruction. This is not just a country specific problem; Thrupp (2018) discusses how the global increase in standardised tests leads to teaching to the test, and an increase in the fabrication of results and damage to students' view of themselves as learners. Also, if countries teach the same set of standards it potentially disregards individual or local contexts of students in relation to their place or circumstances. What a student needs to be successful for living in India is probably very different from what a student needs to be successful for living in New Zealand. "It is hard to find a country that is not using the rhetoric of needing assessment to raise standards in response to the challenges of globalisation" (Stobart, 2008, p. 24). It seems that the ways in which we assess students fall short because they are simplistic and based on what is easy to score and not on what is actually happening as students learn, nor does it take into account local contexts.

Rose (2016) discusses the damage that averages cause when applied to human beings and argues that learning is not standard, and no student is truly average, so trying to evaluate how well a particular student

is learning by comparing their results to other students on a standardised test creates a system of ranking. This “rank-obsessed educational labyrinth traps everyone within its walls”, ranking is used to determine who succeeds and who fails, for both students and teachers (Rose, 2016, pp. 54-56). Schools and universities are ranked publicly by test scores, those with higher scores entice students with high GPA’s and test scores themselves. This may not appear problematic, of course schools are ranked by scores, how else would they be rank? Rose’s point is that this system is ranking students on how alike or average they are compared to each other, not on uniqueness or individuality. “ We all strive to be like everyone else – or, even more actuarially, we all strive to *be like everyone else, only better*” (pp. 57, italics in original). What is important to differentiate here is the purpose of testing. Some testing is used to evaluate the end products, from a neo-liberal perspective this could include the students. From a progressive education perspective, teachers want to evaluate and give feedback on the process of learning. These are two very different uses of testing and utilize different tools.

The previous critiques of the standardized assessment movement include some of the ways that assessment is determining how and what is taught, rather than teaching being informed by contemporary theories of learning. Stobart (2008) elaborates a path forward by focusing on authentic assessment practices using Assessment for Learning (AfL) and other kinds of formative assessments that include a more student-centred approach. He argues that formative assessment is more skills based. “These skills provide the basis of self-regulation (‘metacognition’), which is seen as a powerful source of effective learning” (Stobart, 2008, p. 149). It is assessment that is embedded in the learning process in which students are actively involved in their own learning, teachers can adjust their teaching based on student performance of a task, and there is the opportunity for students to self-assess (Stobart, 2008). Stobart (2008) positions assessment as a form of feedback to improve instruction, “...it is about gathering evidence about where learners are, and providing feedback which helps them move on” (p. 145). Assessment for learning sits well

with the social constructivist approach to learning with its emphasis on the social and active processes where the learning happens through doing the task not merely at the completion of the task. It is the metacognitive skills, understanding of one's own thinking and learning process, that can be used to assess 21st Century skills. In order for these alternative assessments to hold value, we have to devalue the standardised test. Darling-Hammond (2014) points out that a "...growing emphasis on critical thinking, analytical reasoning, and communication skills has led to calls for a more balanced assessment system that includes authentic measures of student performance" (p. 2). This also aligns well with the progressive view of education and Dewey's (1938) stance that learning happens within experiences and that it is the educator's role to recognize which experiences are valuable to the learner. "Above all, they should know how to utilize the surroundings, physical and social, that exist so as to extract from them all that they have to contribute to building up experiences that are worth while" (p.40). This is not a new concept to teachers, since many teachers already use a multitude of formative assessments in their current classroom practices (Black & Wiliam, 1998). These formative assessments or performance assessments include a multitude of products and assessment strategies, "...scientific investigations, social science research papers, literary analyses, artistic exhibitions, mathematical models, technology application -are presented to a jury of assessors who press for understanding in the questions they pose and the judgements they make about whether the work meets specific standards" (Darling-Hammond & Adamson, 2014, pp. 5-6). An important aspect of assessment through a social constructivist approach is the process of learning is valued as well as the outcome. In other words, how a student works to solve a problem, what skills they utilize, what they struggle with and how they communicate with their peers in the process of solving a problem or completing a project. It is therefore important that teachers have tools and a strategy in place to document and assess these process skills.

A number of teaching strategies exist that structure the learning environment to facilitate a more skills-based approach. Popular in 1980s was the use of projects to design learning tasks. Barron and Darling-Hammond (2010) define project-based learning (PBL) as involving “...the completion of complex tasks that typically result in a realistic product, event, or presentation to an audience” (p. 203). The goal is to expose students to problems in a more authentic setting. A major criticism of PBL is that it is too unstructured and that these projects are often all show and no substance, they may look pretty but the learning may be absent (Barron & Darling-Hammond, 2010). There is also the problem of multiple definitions and examples of what PBL entails, some materials or projects are so scripted that students are merely following directions to produce a pre-determined product (Barron & Darling-Hammond, 2010; Thomas, 2000). However, as Barron and Darling-Hammond (2010) point out, when projects are designed well around complex tasks with a focus on authentic investigation and requiring students to pose and answer questions the learning benefits surpass traditional instructional approaches. Assessment plays a central role in PBL approaches. Evaluation tools, such as rubrics, guidelines, and performance assessments for projects provide students with the scaffolding and feedback necessary for success and growth (Barron & Darling-Hammond, 2010).

Assessment is not, however, limited to students. It is also important to use appropriate means to measure how well changes in teaching strategies improves teaching outcomes. Hattie (2009, 2012, 2017; 2019) has spent the last decade researching the measurable effects of changes in teaching strategies on the improvements in students’ outcomes and learning. He specifies the importance of both teachers’ and students’ active involvement in the process. “Note the plural: it is a community of teachers that is needed to work together to ask the questions, evaluate their impact, and decide on the optimal next steps; it is the community of students who work together in the pursuit of progress” (2012, p. viii). It is this dynamic that schools seek to replicate, when both students and teachers are perceived and perceive themselves as active learners. “The remarkable feature of the evidence is that the greatest effects on student learning occur

when teachers become learners of their own teaching, and when students become their own teachers” (2012, p. 14). This set up requires flexibility and responsiveness in curriculum for teachers and students to be able to authentically respond to situations. Stobart (2008) points out, a curriculum that is too explicit or prescriptive that may have “...intended to make the learning clear to the learner, may actually reduce autonomy rather than encourage it” (p. 156). Curriculum that is too explicit, and assessments that are too standardized are also deficient at responding to the uniqueness of every child.



Figure 2: *Standardization cartoon (Briggs, 2013)*

This cartoon is a clear representation of the consequences felt by students and teachers after the enactment of No Child Left Behind (NCLB) (Anderson, Herr, & Nihlen, 2007; Hickok, 2002). The NCLB policies were a US Bush era education initiative that increased the number and frequency of standardised tests has left teachers teaching to the test and cut many enrichment programs for students, including

physical education and the arts (Au, 2009). “No Child Left Behind created a requirement for ‘every child, every year’ testing in grades 3 through 8, plus once in high school” (Darling-Hammond & Adamson, 2014, p. 7). What this cartoon highlights so effectively are the dulling effects of standardized testing on the experiences of students. As testing becomes more structured and black and white, the contrast to the creativity and vibrancy through arts and physical education is more pronounced. The relationship between these colourful and vibrant activities (the arts and physical education) and 21st Century skills is that they tend to embody the skills in their structure and design. It is hard to play sports, perform in an orchestra, or put on play without utilising the skills of communication, collaboration, creativity and critical thinking. The challenge then, is in creating measurement tools that will assess how well students are problem solving, working together, and thinking outside of the box.

As an educator and researcher, it is important to understand and recognize the view of learning one is functioning from. This research stands solidly in alignment with social constructivism, that learning is built through and with others, and continues indefinitely. Through a social constructivist approach to education this research extends the concept beyond students, to how teachers learn and develop their own practice. It is important to highlight how this view frames the discussion around what happens in the learning process and how those occurrences are documented, specifically examining the *process* of learning and the structures that support it. This review will now examine how progressive education and social constructivism view teacher learning and development, and the structures that support it.

2.2 PROFESSIONAL LEARNING AND DEVELOPMENT

What is the profession of teaching; a science or an art? If education is viewed as content to be delivered in discrete chunks of information that can be measured for quality and accuracy, then teaching can be viewed as a technical science distributed to the students via well trained teachers. This research counters that stance with a more organic view of teaching, or teaching as craft. One that recognizes the social and cultural

influences on education, in alignment the social constructivist view of learning. What follows is a description of two complementary views into Professional Learning and Development (PLD);

- teaching as craft,
- and practitioner research.

Teaching as Craft

Wallace and Loughran (2012) note that the discussion of teacher PLD has been the subject of much research over the last twenty years. If education is viewed as a process dependent on the relationship between a teacher and a specific group of students with differing abilities, cultures and goals, then teaching can be viewed as an art (or craft) and therefore resistant to prescribed methods of implementation. Both Biesta (2016) and Dunne (1997) use Aristotle to explain the craft of teaching. That teaching is a craft in which teachers make decisions about not just how to do but what to do in a particular situation. This is important because it recognizes the situational nature of the craft of teaching. That there is no one set of learning experiences that will work for all groups of students. That what is important or invaluable is that teachers be able to use their judgement to decide the best way to teach a particular topic to a particular group of students. Dunne (1997) expounds on what Aristotle meant by the idea of phronesis, or practical wisdom, and how people often make decisions based on experience that cannot be tied strictly to logic (p. 34). This is in contrast to techne, which can be seen as the craft or skill, “the making” of a specific product (p. 244). Dunne uses phronesis to highlight the importance of judgement, and he makes a direct connection to the challenges of creating a person-proof method or “... the case which launched my own inquiry here, a teacher-proof system of teaching” (p. 35). Whilst techne can be viewed as the product by itself, “whereas we can consider a work of techne on its own merits without any interference to its producer” (p. 246). As Biesta (2016) puts it, “what is problematic about at least some of the ways in which the notion of competence has been picked up, however, is that it tries to cover for all possible educational eventualities, thus leading to ridiculously long checklists of everything teachers should be competent in and again

forgetting the role of judgment” (p. 120). This is also supported in the research by Hattie (2012) although he refers to practice as opposed to craft but the meaning is similar. “The word practice, and not science, is deliberately chosen because there is no fixed recipe for ensuring that teaching has the maximum possible effect on student learning, and no set of principles that apply to all learning for all students” (p. 5). The distinction between a craft and science, according to Biesta (2016), is that a science can be broken clearly into discrete steps to be followed, while a craft is relational, subjective and circumstantial. According to Dunne (1997) and Biesta (2016) in order to be a good teacher one must be able to apply good judgement to specific situations with specific groups of students. “Under the craft metaphor, the teacher is an independent artisan, gradually building a repertoire of practice-based knowledge and skills through cognitive apprenticeship” (Wallace & Loughran, 2012, p. 296). The theoretical groundings of this research are framed in the social constructivist view of education which places the profession of teaching as a socially constructed craft. This fits well with the progressive education view of teaching and learning and the view this research takes on 21st Century skills, as process skills, and also helps to demonstrate the any century nature of the skills. As with the distinction between phronesis and techne, where progressive education would view teaching as phronesis and neo-liberals more likely to view it as techne. Kristjánsson (2015) is baffled by MacIntyre’s claim “...that teaching essentially constitutes techne rather than phronesis because it is aimed at external goods” (p. 307). However this research presumes that teachers are not mere technicians who implement curricula designed by experts. If so, education could be transmitted to students and measured by standardised tests. It also narrows the focus of teacher professional development to a specific genre or view of teaching as an art or craft as opposed to a more technical stance. This view of teaching as a craft based on situational judgement requires that the professional development of teachers be directed and influenced by teachers who are in the practice of teaching. In this regard, research which is with teachers rather than about or on teachers is critical.

Practitioner Research

Beyond the shifts in policy and outcome-standards or goals for students, major changes to curricula or assessment practices will require teacher practitioners to adjust their daily practices (Cochran-Smith et al., 2018; Dana & Yendol-Hoppey, 2019; Darling-Hammond, 1990; Darling-Hammond & Snyder, 2000). Schools are organized systems of bureaucracy and established hierarchies (Fullan, 2015). Changing the day to day classroom practices of teachers will require training, transition and problem solving. Or as Biesta (2016) puts it, teacher education is about more than training it is “...the ability to make wise educational judgements” (p. 135). PLD is one avenue to assist in this transition, but the methods of PLD employed will determine the direction of planned changes. This research relies heavily on the work of Cochran-Smith (2018; 1999; 2009) and Darling-Hammond (1993, 2006; 1995) who advocate for the inclusion of teachers as researchers through PLD. Specifically Cochran-Smith (2009) argues that teachers are the “linchpin of educational reform” (p. 1) and any drastic changes in classroom practice. So, what kinds of professional development are both necessary and helpful to teachers? What this research argues is that participatory approaches contribute a rich, insider dialogue to educational research and immediate use of identified changes in practice.

The literature on practitioner research is vast and by no means new to the discussion of PLD (Adler, 1993; Brookfield, 2017; Jarvis, 1999; Menter, Elliot, Hulme, Lewin, & Lowden, 2011; Schon, 1991; Schwab, 1969). According to Menter et al., (2011) “practitioner research in education is a systematic enquiry in an educational setting carried out by someone working in that setting, the outcomes of which are shared with other practitioners” (p. 3). In other words, teachers working to understand their own practice and share their discoveries with other educators. Brookfield (2017) builds the case for personal reflection of teaching and learning, and emphasises the need for that reflection to recognize the particular circumstances and situations that are facing that teacher in that class.

But I do want to point out that although reading books, attending workshops, and watching colleagues can give you some useful insights and techniques, it's wrong to assume that at some point in these activities you'll inevitably stumble on the exact answer to the problem you're experiencing (p. 53).

Here Brookfield argues against the idea that someone else out there holds the solution for educators, requiring them only to "look long and hard enough" (p. 53) to find it. The answers teachers seek are in their classrooms and schools and it is through critical reflection and collaboration with others in similar circumstances that specific solutions or ideas can be found. Collaborative reflection allows teachers to share insights and fight the notion of isolation that can occur when most of one's work occurs without the support of other adults, and possibly together see solutions that they might not see alone. As Brookfield (2017) notes, "[e]ven if I don't receive a startling new insight from a colleague on why students seem disengaged it's helpful to know I'm not alone" (p. 67). For young or new teachers this can be crucial to fighting the feelings of loneliness and isolation and to know that others in the field share your struggles.

Cochran-Smith and Lytle (2009) use practitioner research as an "umbrella term to encompass multiple genres and forms of research where the practitioner is simultaneously a researcher who is continuously engaged in inquiry with the ultimate purpose of enriching students' learning and life chances" (p. viii). It is with this idea of inquiry that they focus on teacher research as professional development and necessary for successful educational reform. 21st Century skills, and the challenges facing students today need more complex solutions and require teachers to respond to diverse groups of students and circumstances (Cloonan, Hutchison, & Paatsch, 2019; Cochran-Smith & Lytle, 2009). Teachers in the current practice of teaching are situated well to observe the rapidly changing needs of students to respond to these complexities. Teacher researchers can speak to the complexity of student success being more nuanced than test scores or even academic achievement. That success is both personal and circumstantial to an individual student and their families.

Practitioners as researchers recognize that the improvement of teaching is a continuing process. Johnson (2019) notes “[it] is naïve to think that a finished teaching product can be created in four semesters of any teacher preparation program” (p. 253). This aligns with the concept of teachers as continual researchers, in that educators must continue to hone their skills through their practice. There are two key areas that Johnson highlights, knowledge development and reflective analysis. Teachers must acquire the knowledge of content and how learning happens (metacognition). According to Johnson (2019) reflection also has multiple layers, or levels. He breaks these down into “1) teaching effectiveness, ...2) research, research-based practices, or research-based theories... and 3) values and philosophy”(p. 254). In other words, teachers reflect on what worked or didn’t work in their practice, they note the alignment of their practice with theory and finally they connect their practice to their personal and professional life philosophy. This concept of teacher inquiry requires time and support from their schools and teaching communities in order for teachers to be researchers of their own practice.

In order to successfully implement this social constructivist approach to teaching and learning reflective practice is required. Reflective practice helps an individual to ask in-depth questions that enables them (and the group) come up with possible solutions (Ghaye, 2011). The link between teaching practice, curricular development, and professional learning and development, can be viewed through the lens of social constructivism. It is how teachers work together to improve their practice and effectiveness in the classroom. Gergen and Gergen (2008) delve into the connection between social constructivism and research as action as they discuss the origin of knowledge and human relationships. “Within the constructionist dialogues we find that it is not the individual mind in which knowledge, reason, emotion and morality reside, but in relationships” (p. 161). Meaning that through working together people can construct knowledge and make meaning, and therefore participatory research can be an important

contributor to knowledge generation. Viewing research in this way is complex and challenging. If we accept the idea that people do not develop in isolation and that we do in fact influence each other through interaction, then it follows that a better understanding of our relationships and interactions will benefit practice. The challenge this view presents is that every new solution or idea reveals other problems in an ever-intertwined network of complexity (Conklin, 2001). I will now turn to 21st Century skills and how these shape what teachers are doing, or should be doing, in classrooms in response to some of the current hot topics in education reform identified in the introduction.

2.3 21ST CENTURY TEACHING

There are examples in the literature that highlight the need for school curricula to shift focus to include learning that emphasises the application of 21st Century skills and is based on the social-emotional realm. Trilling and Fadel (2009), Wagner (2008; 2015), Robinson (2016), and Darling-Hammond (2014), recognize that accumulating facts is no longer adequate, that students ought to know what to do with the content they acquire. According to Trilling and Fadel (2009) the global conversation encompassing education can be summarized in a common set of questions, the most important of which is : “How has the world changed, and what does this mean for education?” (p. xxiii). Their focus is on making sure the world of school matches the world that students will enter. Some of their reasons have a neo-liberal bent, such as their question; “What skills will your child need to be successful in this world you have imagined twenty years from now?” (Trilling et al., 2009). It would be interesting to hear from them what their version of success means. Wagner (2008) however specifically asks the question, “...is there a conflict between preparing student for the world or work and teaching them about their roles as citizens” (p. xvi). He notes there can be “...a convergence between the skills most need for work in the global knowledge economy and the most needed to keep our democracy safe and vibrant” (p. 28). These questions are more in alignment with the social constructivists and progressive education view of teaching and learning. Wagner’s

discussion is focused on the US response to the challenges to of 21st Century teaching and learning in comparison to more progressive countries such as Finland. Robinson and Aronica (2016) challenge that the standardization movement in schools is harming creativity. They propose a view of students as individuals and that schools and curricula ought to view them that way too. “The problem with conformity in education is that people are not standardized to begin with” (p. 36). Their view is aligned well with the progressive education view of students as unique individuals, and it is the teacher and school’s job to provide a rich environment that responds to individual student. Darling-Hammond and Adamson (2014) present a more global perspective of the push for reform in assessment practices specifically in relation to 21st Century skills. “In particular, growing emphasis on critical thinking, analytical reasoning, and communication skills has led to calls for a more balanced assessment system that includes authentic measures of student performance” (p. 2). They highlight some of the changes in curriculum assessment practices in Singapore, the UK and Hong Kong that are outpacing changes in the US. Sahlberg uses the term “Global Education Reform Movement (GERM)” (Adamson et al., 2016, p. 3) for the market-based response of the privatization push in education. Countries like Malaysia are currently seeking ways to measure and assess these 21st Century skills. They have designed the Integrated Cumulative Grade Point Average (iCGPA) as measure of skills such as:

- Knowledge
- Practical skills
- Thinking and scientific skills
- Communication skills
- Professional skills, ethics and values
- Social skills, teamwork and responsibility
- Values, ethics, moral and professionalism
- Information management and life long learning
- Management and entrepreneurship
- Leadership skills (Yusof, Naim, Latip, Aminuddin, & Ya'acob, 2017, p. 106)

These examples from the literature draw out some ideas to be examined in more detail in the following sections;

- misnomer of skills,
- curricula design for teaching 21st Century skills,
- 21st Century skills as innate,
- three frameworks and their commonalities,
- and finally, a definition of the 4Cs.

Misnomer of skills

The term ‘21st Century skill’ is a misnomer as the skills themselves are not unique to the 21st Century nor new to the field of education. Educational and developmental theorists such as Montessori (1912), Steiner (1948), Dewey (1938), Piaget (1953) and Vygotsky (1978) have all focused on these life-skills in one fashion or another. A literature search into 21st Century skills unearths a wealth of results usually connected to the gap between what students are currently taught in school and the work expectations they encounter in the real world. Silva (2009) discusses research done in the US to address the 21st Century skills gap. She argues that these are in fact not 21st Century skills but ‘any’ century skills. She also notes that these are not new ideas but, “from ancient Socrates to 20th Century Dewey” (p. 631), and many current educators support a more skills-based approach. A fear expressed by critics is that the focus on skills will detract from more important content knowledge. Or that content knowledge will be devalued or as Meyer (2009) explains people’s erroneous beliefs might replace facts, or truths. Silva suggests that skills and content are not necessarily exclusive of one another and the skill focus is directed at “what students can do with knowledge, rather than what units of knowledge they have” (p. 630). Other researchers such as Levy and Murnane (2005) write about the changing picture of the global workforce and how these changes impact what students ought to learn in school. They state that technology and automation have drastically changed all sectors of the economy, which means students need new and different skills to enter this newer technologically driven economy.

Curricular design for teaching 21st Century Skills

There is a general agreement in the literature reviewed that something different needs to happen in school to produce citizens of the 21st Century, but what exactly are these changes? How do teachers go about teaching and assessing these skills? Silva (2009) goes on to highlight several examples that have attempted to address the skills debate. The CWRA (College and Work Readiness Assessment) and the CLA (Collegiate Learning Assessment) are two different standardized tests that assess more than content and attempt to evaluate higher order thinking and problem solving. The IB (International Baccalaureate) program has, for over 40 years, measured and assessed both subject-matter and higher order thinking skills. For the CWRA and the CLA students are presented with a performance task, these include scenarios with supplemental material that they must utilise to answer a prompt. A major critique to these assessments is that “[g]ood writing skills may inflate the total score, creating a mismatch between observed performance and inferences regarding a student’s ability” (Aloisi & Callaghan, 2018, pp. 75-76). These few examples demonstrate that such complexity is possible and even scalable. Specifically, the IB program is international in scope and robust in its assessment strategies. A key factor here is that in order for curricula to change, testing and assessment must also change (Darling-Hammond & Adamson, 2014).

Implications regarding curricula design for this research include that each class represents a unique context. It is therefore necessary to have a flexible curriculum that allows a teacher to respond to the class and to individual student’s needs and circumstances. This flexibility also includes the possibility of plans not working, lessons failing, and classes responding to unplanned events that arise, or the idea of integrating risk into the classroom. This pushes against the idea that curriculum can be thoroughly mapped out and designed to meet the needs of a student. This idea of risk is highlighted by Biesta (2016), and the need for things to fail, or potentially fail, in order for real learning to happen. For ‘real’ education to happen there

must an element or risk of it not happening. Biesta goes on to explain that education is not an input/output scenario but is a relational experience between people, and that relationships are complex and unique.

To be serious about Dewey's philosophy of communication therefore means that we must be prepared to take the risk that this philosophy will change as a result of our entering this philosophy in our communication with others. As long as we try to preclude this risk we are not engaging in a process that on Dewey's definition would count as real communication and real participation; and in doing so we would preclude the opportunity for our partners in communication to appear as other than what our theories, assumptions, and expectations may want them to be (p. 41).

This research revealed the sort of structure and support teachers need in order to function in a social constructivist classroom setting; one that specifically supports the development of the 4Cs of communication, collaboration, creativity and critical thinking.

For Dewey (1938) this is the basis of experiential education, that learning can be situated around the needs and interests of the child, not in some haphazard free for all, but in appropriately planned and developmental framework. "For some experiences are mis-educative. Any experience is mis-educative that has the effect of arresting or distorting growth of further experience" (p. 25). Dewey refers to the importance of the continuity of experience, "...if an experience arouses curiosity, strengthens initiative, and sets up desires and purposes that are sufficiently intense to carry a person over dead places in the future, continuity works in a very different way" (p. 38). This speaks to the responsive nature of progressive education and the need for curriculum to be flexible enough for the teacher to adjust what is taught to meet the curiosity and desires of students. It is also the responsibility to the educator to know what kinds of environments and stimuli are likely to lead to growth and development. So how would Dewey respond to the current debate of 21st Century skills? Since we have established that they are actually any century skills, we can theorize that Dewey would encourage parents and educators to "change with the times" and "to adapt to current societal changes rather than fight them" (Mooney, 2000, p. 32).

21st Century skills as innate

In their introduction, Trilling and Fadel (2009) set the stage by trying to explain to a visiting team of Chinese officials from the Ministry of Education where creativity and innovation lie in their curriculum. It does not lie there, as they explain it. It exists in the subconscious mind of students who are raised in the cultural paradigm of American idealism and exceptionalism.

It's more in the air we breathe—or maybe the water we drink; the history of our country—Thomas Edison, Henry Ford, Benjamin Franklin; it's in our business culture, our entrepreneurs, our willingness to try new ideas; the tinkering and inventing in our garages, the challenge of tackling tough problems and the excitement of creating something new; in being rewarded for our new ideas, taking risks, failing, and trying again (Trilling et al., 2009, p. xx).

This idea is seen as dangerous, perhaps making creativity and innovation in education an unseen and revolutionary American ideology. It has the potential to undermine broader educational goals. The idea also implies that abstract concepts such as creativity and problem-solving cannot be taught, measured or improved upon. In artistic terms abstract art uses geometric forms and colours to represent reality in a way not based in visual reality. Meaning, what one person perceives will likely be unique to that individual, while another person viewing the same piece, will see something different, thus leading to debates about the meaning or truth behind the artist's intent. In a similar vein, if education is to include creativity and problem solving as academic aims are teachers to measure and value the quality of a student's skills in creativity and problem-solving? Drawing on a standardised assessment could result in a student being identified as 75% creative. So although Trilling and Fadel's (2009) premise of the global conversation in education reform is evident, teaching and assessing the more ambiguous or abstract skills such as creativity and innovation are nuanced and fraught with complications. Central to many theoretical discussions happening in the field of education is the idea of 21st Century skills (Biesta, 2010; K. Robinson & Aronica, 2016; Teo, 2019; Trilling et al., 2009; Wagner & Dintersmith, 2015). In the literature there can be found core themes which re-occur in multiple formats. Next, I will highlight three examples that share these core themes.

Three frameworks and their commonalities

Across the literature reviewed there was a focus on the need for a shift in focus to 21st Century skills to assist students and prepare them for the rapidly changing world of work (Bell, 2010; Erstad, 2009; Larson & Miller, 2011; McPhail, 2016; Ornstein & Eng, 2015; Rabacal, Ma. Janet, & Oliveros, 2018; Trilling et al., 2009; Wagner, 2008; Zhao, 2015). The language used to describe education as preparing students to enter the workforce is a clearly neo-liberal perspective. It is not surprising that much of the funding for research comes from business and corporate pockets. A quick look at the National Education Association website (nea.org) lists Time Warner, Ford, Microsoft, Cisco Systems, Dell, Verizon, and SAS as business partners in the research into 21st Century skills. It is also of note that the NEA website is an .org (organization) and not a .edu (education) or .gov (government). That being said, what is identified in this section are the commonalities across the frameworks of 21st Century skills in three examples from the literature.

Trilling and Fadel (2009) identify groups of skills for this new future we are living in. These groups of skills are “learning and innovation”, “digital literacy”, and “career and life” (2009, p. xxvi). Their first grouping of skills, learning and innovation, embraces my first of three examples: “Critical thinking and problem solving, communication and collaboration, creativity and innovation” (p. xxvi).

The Partnership for 21st Century Learning is a non-profit organization in the United States that brought together the US Department of Education and business organizations “to serve as a catalyst for 21st Century learning to build collaborative partnerships among education, business, community and government leaders so that all learners acquire the knowledge and skills they need to thrive in a world where change is constant and learning never stops” (Partnership for 21st Century, 2009). They have articulated a framework for the skills they believe are crucial for learners today and in the future. The section in orange, again titled ‘learning and innovation skills’, is the second of the three examples:



Figure 3: P21 Framework for 21st Century learning (Greenstein, 2012, p. 6)

Learning and innovation skills in the first two examples are clearly articulated as the 4Cs of communication, collaboration, creativity and critical thinking. Harvard scholar and educational reform activist Tony Wagner has dedicated several books to the topic including *Most Likely to Succeed* and *The Global Achievement Gap*. Wagner (2008) groups these into what he calls the seven survival skills for the 21st Century, the third of my three examples:

1. Critical Thinking and Problem-Solving
2. Collaboration Across Networks and Leading by Influence
3. Agility and Adaptability
4. Initiative and Entrepreneurialism
5. Effective Oral and Written Communication
6. Accessing and Analyzing Information
7. Curiosity and Imagination (Wagner, 2008)

Although Wagner explicitly names the three Cs of critical thinking, collaboration and communication, it is a modest stretch to understand 'curiosity and imagination' as creativity.

The entities funding the research in 21st Century skills are some of the key players who are looking for more skilled workers to enter their businesses. But should we rely on them to define the aims and outcomes of education? This discourse on the shift in education shapes the public perception of the problems and solutions of educational policy, and as Bourke and Meppem (2000) identify there is a power in the “lexicon of keywords”(p. 299). What follows is an examination of their commonalities and definitions and language used to talk about 21st Century skills.

Definition of the Cs

The 4 Cs of critical thinking, communication, collaboration, and creativity formed the basis or starting point of the research. Through the process of the focus group meetings the research group identified a 5thC of character to include in their language and observations. This 5thC was formally adopted by the group during the 3rd focus group meeting, so throughout the findings there are references to the 4-6 Cs in a few different iterations until the group decided on 5Cs.

Critical thinking includes “...analyzing information, applying strategies for deciding, readiness to consider ideas, using logical inquiry, making inferences, appraising evidence, testing conclusion, making accurate judgements, and analyzing assumptions” (Greenstein, 2012, p. 63). As is clear in the definition a standardised assessment of critical thinking would be challenging as many of its characteristics require judgement and a variety of answers, there is not one just one way to think critically. Young students demonstrate critical thinking through prediction, what might come next in a story, and older students can debate current events or the effects of social media on mental health. These are complex skills that require complex assessment strategies such as performance or formative assessments (Darling-Hammond & Snyder, 2000).

There are many forms of **communication**; written, oral, visual and even sensorial. “Communication involves creating meaning, imparting knowledge, skills, and beliefs to others, and receiving input from multiple sources” (Greenstein, 2012, p. 95). Traditional forms of education include many written and spoken forms of communication teaching and assessment; students write essays or deliver presentations. More complex uses of communication such as engaging in conversation with your classmates to solve a problem or to create a play require a more progressive approach to education. The skills of communication are often used along with the skills of collaboration.

Collaboration can be defined as “...active listening skills, responding with respect, expressing ideas clearly through multiple channels of communication, and using these skills to reach consensus and compromise” (Greenstein, 2012, p. 106). Both communication and collaboration fit well with the social constructivist view to teaching and learning with their view on development and Vygotsky’s socio-cultural theory (Vygotsky, 1978). Collaboration adds an element not addressed by the more neo-liberal agendas for education reform. Who are we collaborating with? A progressive approach would ask that questions of inequality, power and ‘Other’ be addressed through the process of collaboration, “...where Other is defined as one who is different to oneself” (Bruce, North, & FitzPatrick, 2019, p. 1). It is not a simple act to assess collaboration, how can the power dynamics be attributed for, are students getting along because they are passively following a leader? A quiet group is not necessarily exhibiting success in critical thinking, communication and collaboration. Maybe the raucous group in the corner is actually participating actively in the process of collaboration.

It appears that a definition for **creativity** is more challenging to nail down, so I will include a range of different definitions.

The creative work is a novel work that is accepted as tenable or useful or satisfying by a group in some point in time (Stein, 1953, p. 133).

Creativity is the interaction among aptitude, process, and environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context (Plucker, Beghetto, & Dow, 2004, p. 90).

The dictionary defines the term as follows: "Creativity is marked by the ability or power to create—to bring into existence, to invest with a new form, to produce through imaginative skill, to make or bring into existence something new." According to the psychologist Carl Rogers (1967, p. 350), creativity is "the emergence of a novel relational product, growing out of the uniqueness of the individual" (Greenstein, 2012, p. 75).

These definitions share concepts that creativity includes the production of something new, and most include the element of contributing to the social context. Plucker et al. (2004) note that there is a lack of research on the subject of creativity that could be attributed to the difficulty in agreeing on a precise definition. Although the neo-liberal drive to improve the outputs of education has recently increased, "...and corporations are investing very heavily in creativity education" (p. 83). However, creativity sits comfortably within the social constructivist "...approaches to learning and teaching" as they "... stress the role of knowledge creation as opposed to knowledge transmission" (Plucker et al., 2004, p. 84). Creativity can be viewed as the successful product or culmination of critical thinking, communication and collaboration. In order to demonstrate competencies in the skills as defined, students will need the opportunity to work together to identify and solve problems, which will require a different type of curriculum than the traditional scope and sequence document that defines specific ends and content.

Character, or character education has similarities to moral education, citizenship, and moral development. It is a complex and controversial topic, with some thinking it outside the scope of academic school curriculum. A vast array of literature exists on the topic, too much to do it justice in this dissertation (Berkowitz & Bier, 2005; Bulach & Butler, 2002; I. Davies, Grammes, & Kuno, 2017; Duckworth, 2016; Howard, Berkowitz, & Schaeffer, 2004; Lickona, 1996; Narvaez & Lapsley, 2008; Pawelski, 2004;

Smagorinsky & Taxel, 2005). However, at this school character is viewed as central to student development and how engage both with learning and fellow students. Character is identified by the research group members as the list of life-skills the school promotes in the parent and teacher handbook.

LIFESKILLS

Integrity -- to act according to a sense of what's right and wrong
Initiative -- to do something because it needs to be done
Flexibility -- to be willing to alter plans when necessary
Perseverance -- to keep at it
Organization -- to plan, arrange, and implement in an orderly readily useable way
Sense of Humor -- to laugh and be playful without harming others
Effort -- to do your best
Common Sense -- to use good judgment
Problem-Solving -- to create solutions to difficult situations and everyday problems
Responsibility -- to respond when appropriate, to be accountable for your actions
Patience -- to wait calmly for someone or something
Friendship -- to make and keep a friend through mutual trust and caring
Curiosity -- a desire to investigate and seek understanding of one's world
Cooperation -- to work together toward a common goal or purpose
Caring -- to feel and show concern for others
Courage -- to act according to one's beliefs
Pride -- Satisfaction from doing your personal best
Gratitude -- the quality of being thankful (Student and Parent Handbook 2019/2020).

Lack of agreement in application

The literature reveals consistency in the skills that ought to be taught but reveals gaps in how to transition from current teaching paradigms to these 21st Century skills. Voogt and Roblin (2012) note that “[t]he findings indicate a large extent of alignment between the frameworks about what 21st Century competences are and why they are important (horizontal consistency), but intentions and practice seemed still far apart, indicating lack of vertical consistency” (p. 299). It is also worth investigating whether these are the best terms to discuss the current challenges. Such as the already discussed misnomer of 21st Century skills. Bourke and Meppem (2000) ask if terms are used because they are catchy and trendy in appeal “... rather than on their ability to promote a pragmatic course of action” (p. 300). Similar to the discourse in the field of the environment the terms used “mean different things to different people in different contexts and it obviously difficult to apply this ambiguity in wither environmental policy or

practice” (S. Bourke & Meppem, 2000, p. 300). Although we can define the language in academic papers, or within a particular field there is prior meaning already attached to the terms of communication, critical thinking, collaboration and creativity in people’s minds. Voogt and Roblin also point to other researchers who make a strong argument for the direct involvement of schools in developing curricula aspects of teaching and assessing 21st Century skills and notes the current lack of involvement of schools in current studies. “However, from the perspective of sustainable curriculum development (Kessels 1999, Van den Akker 2003) it is worrying that the education sector, let alone schools and teachers, do not seem to be actively involved in the 21st Century initiatives and in the overall debate about these competences” (Voogt & Roblin, 2012, p. 305). Teacher practitioners need a voice in how these changes are to be made if they are to be successful adopted in classroom practice.

Commonalities and moving forward

Commonalities can be found in the three frameworks identified earlier; Trilling and Fadel’s (2009) learning and innovation skills, the P21 framework for 21st Century learning (Partnership for 21st Century ,2009), and Tony Wagner’s (2008) seven survival skills. The skills of communication, collaboration, critical thinking, and creativity are common to all of the 21st Century skills frameworks and are not adequately integrated into current assessment practices. Many countries now include 21st Century skills in their curriculum documents. For example, The New Zealand Curriculum document (2007) includes values and key competencies that sound much like the language of 21st Century skills. Included in the values section are “innovation, inquiry, and curiosity, by thinking critically, creatively, and reflectively” (p. 10). There is a common theme that emerges across the discourse, that students need skills in addition to core knowledge in order to succeed in the world today. These skills that Wagner (2008; 2015), Trilling & Fadel (2009), and the New Zealand Ministry of Education (2007) articulate beg the questions: how will we assess and measure students’ abilities to master these skills?

2.4 EFFECTS OF A RESEARCH APPROACH ON A STUDY

How social constructivism shapes Professional Learning and Development

This social constructivist approach to teaching and learning has consequences for the design of classroom experiences and by extension to teacher PLD. Additionally, this research investigated the connection between social constructivism and the current shift in educational thinking in relation to teacher learning. According to social constructivism skills such as communication, collaboration, critical thinking and creativity are developed through relationships with others and therefore not a strictly teachable or deliverable commodity. The social constructivist theory of learning indicates that you cannot merely tell students how to collaborate or be creative, they have to do it, and do it with others and reflect on the process. If this is true for students, then by extension it ought to be true for teachers improving their own craft. This also an ends-means alignment, asking teacher to do what we are asking students to do. Dana and Yendol-Hoppey (2019) point to Dewey's call for "teachers to engage in reflective action that would transition them into inquiry oriented classroom practitioners" (p. 33). Educators deconstruct situations, the curriculum, and the school to evaluate how well it is meeting the needs of the students, the community, and even the teachers. "Teacher inquirers focus on providing insights into teaching in an effort to make change, working tirelessly to unpack all of the complexities inherent in the act of teaching to become the very best teachers they can be for every individual student"(Dana & Yendol-Hoppey, 2019, p. 31). In this way, they demonstrate the approach to their students, not merely teaching problem-solving but also modelling it.

PLD (Professional Learning and Development) in education is a complex task (Bore & Wright, 2009). It is complex, messy, and dependent on people; it is socially constructed. It is these complexities that suggest deep and rich qualitative research into PLD would yield valuable knowledge. "Within the constructionist dialogues we find that it is not the individual mind in which knowledge, reason, emotion and morality reside, but in relationships"(Gergen & Gergen, 2008). It would therefore behove us to investigate together

answers to group questions and embrace the complexity of relationships. This investigation can be assisted through critical participatory action research.

How critical participatory action research shapes Professional Learning and Development

Without delving too deeply here, since it will be elaborated further in the discussion, it is important to introduce the concept of practice and how action research, and more specifically critical participatory action research (CPAR) can improve the quality of practice for a group of teachers. Schatzki (2012) notes that practice is a collection of sayings and doings that comprise a group of people's organised activities. In order to improve the quality of a group of teachers' activities, or practices, that group must first notice and understand what those sayings and doings are, and what are the aims towards which they work. Just as it is challenging to describe something in which you are fully immersed, as it would be for a fish to describe the concept of 'wet', it is also challenging to understand and explain the reasons for something that you do by second nature, or accept to be true. It is not until you attempt to describe and justify why you do something that you have always done, that you might discover original flaws, or flaws that now exist that did not originally exist. It is this concept that CPAR can address, since a group can look closely at the seemingly accepted ways of doing things to see if they should still continue in this manner, or if their behaviour may be unjust, unhelpful, or somehow counterproductive to the groups' declared end, or aim (Kemmis, McTaggart, & Nixon, 2014). Some of the key features of CPAR are that "participants get together and talk about their work and lives. They explore whether things are going the way they hope, or whether things would be better if they had acted otherwise"(p. 33). In this way CPAR blends with and assists progressive educators in their attempts to better understand the situations in which they practice in order to meet students *where they are*. If educators are to be responsive to situations, they must have ways and means of recognizing their own current circumstances and their potential impact on students (Kemmis & Edwards-Groves, 2018).

Practitioner research can be seen as resistance or push back against the widely enforced trend toward more standardised modes of assessment and curriculum. Groundwater-Smith and Mockler (2018) make the link between Cochran-Smith and Lytle's (1993) proposition of teacher inquiry and knowledge production and Kemmis, McTaggart and Nixon's (2014) view of action research as a means for teachers to change their own practices and also the sites of their practices. "As a collaborative and participatory practice, action research builds on local knowledge and embraces and nurtures agency" (Rönnerman & Salo, 2018, p. 96). It is not as simple as turning teachers loose to collaborate to improve their practice. There are obvious logistical restraints that must be overcome to allow teachers the time and space to participate in practitioner research. "Teachers must be freed from their work duties to conduct action research and must be provided with a physical space in which to meet" (Rönnerman & Salo, 2018, p. 101). Mockler and Groundwater-Smith (2018) specifically discuss "critical collaborative practitioner research as a disruptor to manifestations of neoliberal educational agendas in schools" (p. 108). In this way teachers are able to name or identify the practices that, in their view, are un-educational or counter to the aims of their practice.

Through CPAR teachers are able to work together to better understand the specifics of their teaching practice in order to know if they are doing what they notionally plan, and how successful they are in the *doing* of it. Practitioner research offers an investigation into the site of practice as a response to the push toward standardisation and recipe teaching. Hence the use of CPAR dovetails into the progressive view of education as socially constructed practice. It is through this kind of research that a group of progressive educators can study their *sayings*, *doings*, and *relatings* to evaluate their fitness for practice and the specific site of education. Kemmis and Edwards-Groves (2018) describe the relationship between *sayings*, *doings*

and *relatings* or the “intersubjective space” and the practices of educators. Sayings are the words and language used and agreed upon by a group or “*cultural-discursive arrangements*”. *Doings* are the actions that occur within a particular physical space-time or “*material-economic arrangements*”. *Relatings* are the ways people relate to other people or places or the “*social-political arrangements*” that include things like power, hierarchies and synergy (or powerful collective group work) (pp. 120-121, emphasis in the original). Viewing practice through this lens allows practitioner researchers to view the situational happenings ontologically rather than epistemologically, meaning a focus on *what* is actually happening rather than the *why* behind what is happening.

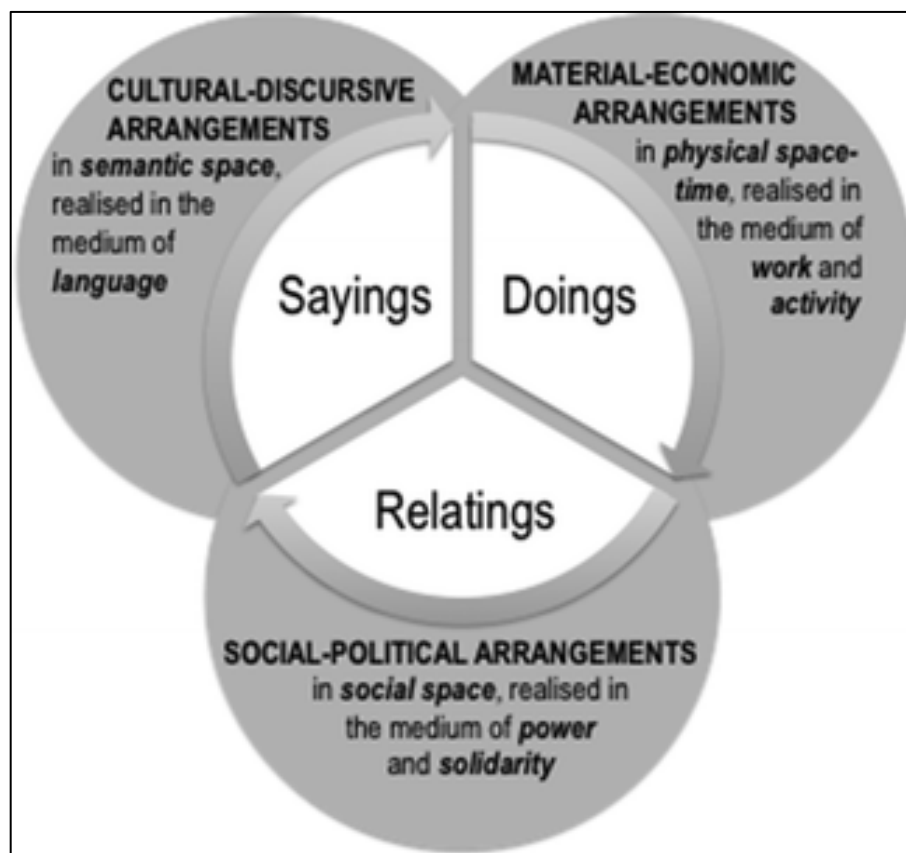


Figure 4: Relationship between practice architectures and cultural-discursive, material-economic and social-political arrangements (Kemmis & Edwards-Groves, 2018, p.122)

CPAR can be used by practitioner researchers or specifically teachers reflecting on their teaching practice to make improvements. This is considered 'action research' in the tradition of Lewin (1947b) in that the research has an intended practical outcome of change with cycles of reflection and action. The research is 'participatory' in the sense that Kemmis, McTaggart and Nixon (2015) expand on, that a group collaborates on their particular site of practice to establish and make changes together. In regard to research that studies a site of practice that is 'collaborative' in nature then researchers ought to take into account how groups function together and to best understand these groups and how their input and voices are represented in the study. For the action or change in practice to be sustaining requires the changes in practice to recognize the cultural-discursive, material-economic, and social-political elements (sayings, doings and relatings) of any practice. Finally, it is 'critical' in that it allows for the group to self-reflect on their practices to establish whether they are just or un-just, educational or un-educational, and even evaluate the elements of power and coercion that may exist and exert influence over the study or site of the research.

In critical participatory action research, participants aim to be 'critical' in this way, to find how particular perspectives, arrangements and practices create untoward effects. Through critical participatory action research, they aim to change things so untoward consequences can be avoided, acting negatively *against* real and manifest irrationality, unsustainability, and injustice, rather than positively *for* some elusive ideal of what counts as rational, sustainable, or just (Kemmis et al., 2015, p. 453).

The critical and participatory elements of CPAR emphasizes shared ownership of research and is often used to promote social justice and human rights issues (Borda, 1979; Freire, 2000; Kemmis et al., 2014). CPAR recognizes the important connection between education and social change and the role education systems play in continuing cycles of oppression or maintaining the status quo. It also tends to be used to look at issues of marginalization within classrooms and schools and looks into the discourses available to members of communities of practice (Borda, 1979; Carr & Kemmis, 1986; Kemmis et al., 2014).

SUMMARY

In this chapter I have argued that an embrace of progressive education and the social constructivist view of education aligns with the transition to 21st Century forms of teaching and learning to equip teacher practitioners to work together to make changes and improvements in their sites of practice. This is presented through a view of learning that is student centred and resistant to standardized forms of assessment, recognizing that learning is constructed dynamically through language and culture. I align this research with Vygotsky and Dewey, and their views that education is social, situational, and responsive. Assessment and measurement are discussed in light of how they shape the design of curricula materials and teaching strategies. A critical eye is taken to how neo-liberal forces can influence schools and programming. Modes of assessment ought to mirror desired outcomes for students and teachers. In other words, careful attention needs to be focussed on that we are indeed measuring what is valued, not what is easy to score. This review points out some of the ways traditional assessment tools fail to meet the complexities of social constructivist methodologies to teaching and learning. This also highlights the need for PLD for educators to mirror the same methodology. It should be responsive to the educators involved and dynamic in nature. Traditional PLD for educators is often presented in short workshops that are lecture and presentations of 'best practices'. These often ignore the situations that educators work within and rely on a recipe style of teaching and learning. Consistent with social constructivism, this Professional Learning and Development (PLD) presents teaching as a craft. This craft, or reflective practice, is based on Aristotle's description of phronesis, or practical judgement, reflecting the concept that educators make many decisions 'in the moment' and develop relationships with students while teaching. This research extends this concept to practitioner research. This argues that major shifts and changes in education must include the voices of actual teachers. It discusses the obvious theory and practice gap. This study presents practitioner research as a bridge between sites of practice and sites of theory. It also strengthens the argument of reflective practice as presented by Brookfield (2017). There is a strong alignment between 21st

Century teaching, progressive education, and life-skills assessment. This chapter presents some frameworks that highlight the 5Cs of communication, collaboration, critical thinking, creativity and character. Through the use of critical participatory action research (CPAR) the study represents the coming together of all the elements discussed previously; social constructivism, progressive education, 21st century skills, and PLD. Through cycles of reflection and action, a group of practitioner researchers can come together to assess their site of practice to identify things that are not working or out of alignment. They can then set out changes to be implemented and design ways to assess their projects.

This review of the literature has presented research in the three areas of a clear stance on learning, professional learning and development, and 21st Century teaching. The stance of learning aligns social constructivism and progressive education as positioned to meet the challenges of assessing 21st Century skills from a more holistic and developmentally appropriate approach. This is a push against the trend to use the increasingly neo-liberal language of standardised measurement and assessment. The view of the professional learning and development of teachers shapes the expectations administrators and schools have for what teachers should do, and how they improve what they do in classrooms. This review presents teaching as a craft and that teachers have much knowledge to add to the profession, this knowledge generation will be highlighted in Chapter 6. The need for the shift to 21st Century teaching is presented along with a discussion of terms and connection to their foundation in progressive education and the 20th Century. There is much complexity in looking at 21st Century skills, from the curricular design, the innate nature of the skills, and multiple frameworks for presenting the skills and their commonalities. There are also varying definitions of the 5Cs, and the innate nature of skills leads to the lack of agreement in how the skills are applied to teaching and learning. This review also articulates how social constructivism with the aid of CPAR can be used as an approach to PLD and how this fits well within its view of 21st Century skills.

The literature clearly shows the need for a re-evaluation of our approach to assessment and measurement. Schools typically struggle to communicate how they will measure and assess students against this new paradigm of 21st Century skills. Many schools articulate in their mission statements, or curriculum documents, a desire to provide students with a more meaningful educational experience but until they design a way evaluate and give students feedback on improvement in these 21st Century skills, their students will still be assessed on traditional content standards. To complicate the problem, a substantial shift in what is taught and measured means major changes must occur in the day to day practice of teachers. Who teaches these teachers in the new ways of teaching, while they are currently teaching?

This kind of shift requires major transformation to the teaching and learning process and highlights the challenge ahead. “The reasonable man adapts himself to the world: the unreasonable one persists in trying to adapt the world to himself. Therefore all progress depends on the unreasonable man” (Shaw, 1929). Change, progress and development all depend on people doing new things, in new ways. These dilemmas bring us back to Biesta (2006) and the need to revisit the aims of education. This literature suggests that teachers have much to say on how these shifts or changes in educational practice can and should happen in their classrooms (Dana & Yendol-Hoppey, 2019). This effects of change and time on this study will be revisited in Chapter 6. It also provides a basis for the use of CPAR practices which support the formalization of the process.

The research process is often called ‘collaborative’ simply because the researcher and the teachers are formally locked into a teacher education collaborative as formal partners. But this tells us relatively little about the power struggles going on within the collaborative, as part of a continuing process of negotiating and renegotiating power-relations (Elliott, 1994, p. 135).

Research with teachers on their practice, in order to be truly collaborative, needs to actually empower teachers rather than just the academic researchers in universities. The connections of empowerment and trust to progressive education will be expanded on in Chapter 6. “Although in many ways teaching might

be described as involving ongoing inquiry into practice, it is through the more formalised approach of teacher research that teacher learning is able to move beyond the individual practitioner and be accessible and useful for others” (Wallace & Loughran, 2012, p. 298).

Social constructivism and critical participatory action research are used as the theoretical framework for this research. There is a strong connection between practitioner research and social constructivism. Armstrong (2019) highlights these similarities, “[c]onsider the different aspects of Action Research from a procedural point of view and the way they relate to features of Social Constructivism, notably the ZPD and scaffolding” (p. 14). Teaching is viewed as a living craft that can be improved upon in connection with other practitioners and situationally while teaching. Darling-Hammond (1995, 2006,, 2014, 2016) and Cochran-Smith (1999, 2009, 2018, 2020;) informed my inquiry on professional development and the craft of teaching. There is no perfect formula for excellent teaching. There are ways of teaching that support the craft of teaching through reflection in practice. In this research, the goal was to work with the teachers to produce a meaningful change for the school. The structure of the focus group meetings, teacher observations, in-service time, and individual semi-structured interviews allowed for us to delve into important questions of our *sayings*, *doings*, and *relatings* for the school and address the research questions together. Later in the discussion chapters, I will weave these concepts together to present the current educational paradigm from the perspective of progressive education and propose implication of this practitioner research that can be taken to engage the problem, from the specific (related to the school where this study was conducted) out to the more general applications of this research.

CHAPTER 3: METHODOLOGY

3.1 OVERVIEW SECTION

This chapter develops a methodology to investigate the intersection between social constructivism, critical participatory action research (CPAR) and constructivist grounded theory (CGT). First, I will define CPAR and make the argument for why it is the best available method for answering my research question in this context. I will then describe the site and situation of the school and finally I will describe the process of gathering and analysing the data using CGT to address the research question:

How can professional development of teachers be framed to connect to the practical experiences of teaching and theories underpinning progressive education to better understand the difficulties of articulating 21st Century skills to the school community in a society heavily influenced by neo-liberalism?

Social Constructivism can be aligned with critical participatory action research (CPAR) and progressive education but not without recognizing some tensions (Kemmis & Edwards-Groves, 2018). It would have been possible to view this link or alignment through critical theory with an emphasis on power, post-structuralism with an emphasis on the language and dialogue of the research, or postmodernism with a view to power relationships and discourse analysis. I was able to keep these potentials in mind and look closely at the data to reveal which view would be useful in investigating the process. The theoretical groundings of the place the research was conducted, progressive education, aligns with the social constructivist approach to learning, and the research process of CPAR. In dealing with the data, I utilized constructivist grounded theory (CGT) to help find the themes located in the transcripts. CGT is based on Charmaz (2014) interpretation of grounded theory and is a method of investigating data collected in qualitative research that is premised on the interpretations arising from the data rather than the researcher arriving with preconceived notions. New action researchers sometimes use grounded theory in their data analysis because much of the literature about the process of enacting action research leaves out the methods of dealing with data. Dick (2007) states; "I've known several thesis candidates who chose

grounded theory for data analysis within an action research thesis. Asked why, they responded that action research literature didn't explain how to analyze the data; grounded theory did..." (p. 402). The cycles of reflection of CPAR made it possible to look at the data as we (the research group) were in the process, to question what we were talking about (*sayings*), what we were *doing*, and how we were *relating* so we could decide how to respond next. It also allowed the research to be responsive to the group and site of the research, central tenets to CPAR.

In this study, a group of teacher practitioners came together to talk about their personal practice of teaching. Though I had some questions in mind and a deadline based on my doctoral timeline, what transpired was dependent on how the group came together and on the relationships we nurtured in the process. The dialogue and conversations that ensued reflect the Socratic method, leaving room for ambiguity and discovery (Oyler & Romanelli, 2014). There were times, as the research facilitator and the one with a doctoral study to accomplish, that I worried we were just talking, venting and occasionally spinning our wheels. I had to lean in and trust the process, a phase I had adopted during my master's work; a mantra that has stuck with me. This is also a key feature of CPAR referred to as the recognizance phase, where the group spends time discovering their languages and beliefs (Kemmis et al., 2014). It is a time where a group can ask "what is happening here?" (p. 34). This process is also what social constructivism entails; people building community and comradery through professional relationships that respond to the environment and circumstances in front of them. Biesta (2006, 2010, 2016) and his view on the processes of teaching and learning, Vygotsky (1978) and development of social constructivism, and Dewey (1938, 1966) and his view of the purpose of education were consistent and pervasive throughout this study and its alignment with progressive education.

As a researcher coming into a school to conduct this study, I did not want to disrupt or steal precious time away from the busy schedule of teachers. I was also aware of the potential consequence of this study on a small school. My own previous ties to the school connect within me a responsibility to make this time valuable regardless of the outcome of the research. These parameters led me to the participatory and democratic research design, and the methodological framework of CPAR. The nature of CPAR encourages open discussion and reflection upon the processes of teaching (or other practices) in order to make necessary changes, this by design is democratic and emancipatory, giving power to the practitioners to identify the changes and improvements they want to make to their practices. This made the time spent together in the project valuable to the practitioner teachers who participated.

3.2 CRITICAL PARTICIPATORY ACTION RESEARCH

Participatory action research is a process by which people to work together to enact some kind of change in their environment. "At its best, then, participatory action research is a social process of collaborative learning realised by groups of people who join together in changing the practices through which they interact in a shared social world in which, for better or worse, we live with the consequences of one another's actions" (Kemmis & McTaggart, 2005, p. 563). Kemmis and McTaggart go on to explain the emergence of critical participatory action research as an added element of dialogue between groups of researchers that allows research to question the circumstances through a robust self-reflective process. "It arrived to provide a frame of reference for comprehension and critique of itself and its predecessors and to offer a way of working that addresses rampant individualism, disenchantment, and the dominance of instrumental reason..."(pp. 562-563). Irwin (2010) describes a similar situation in his choice of research methodology, which was....: "This is because the choice of this research topic, the research paradigm, the participatory action methods that unfolded, and the conclusions drawn from the research cannot be separated from the background and perspective of the researcher" (p. 15). Action research in general, and

CPAR more specifically, recognize the power of a group of engaged individuals in their particular places to make changes to their own practices through cycles of reflective discussion and action. Through a CPAR paradigm, I felt that we, (the members of the research group), could deconstruct the story of the school (sayings), understand its current teaching practice (doings) and formulate a framework for communicating its structure (relatings) to each other and the larger community (Kemmis, McTaggart, & Nixon, 2014). In this way we would be answering the research questions of how teachers can work together to improve their practice.

In CPAR a group works together to create or change something that directly affects them and is founded in a process of investigation and reflection. As an insider at the school, I was keenly aware of the challenges the school had faced; of the false starts and misguided roads they had travelled. I had also seen the moments of greatness when everything came together, and the momentum surged. This background knowledge gave me a place to start and a connection to the group of teachers currently working at the school. Other researchers have noted that deep knowledge and close connections increase the likelihood of success in research partnerships. “Successful academic-practitioner collaborations require three elements; a “champion” in the practitioner community to advance the coproduction partnership; tenured stakeholders; and compromise amid the two communities to advance knowledge” (Yu, 2018, p. 1). I wanted to know if there was a way to capture the momentum and formalize the processes that were shown to have worked and identify the unproductive side roads. It is my belief that change is most effective when it is bottom-up and when the participants, not only agree on the change, but are actively involved in generating it. They are more likely to take ownership of the changes. This belief comes not only from my own teaching experience but also from managing other teachers plus my experience with working as part of a team of teachers and now working as a researcher with other practitioners.

A criticism that action research and social constructivism share is their embrace of subjectivity. “The assumptions of scientific paradigms are built on generations of empirical investigation in the natural sciences underpinned by notions of objectivity, reliability, generality and reductionism” (Burns, 2005, p. 60). But this critique can also be viewed as a strength. “First, for the sophisticated reader, traditional positivist research seems disingenuous. Researchers couch their findings in value neutral or realist terms, thus suggesting their purely objective status while suppressing the underlying value agenda” (Gergen & Gergen, 2008, p. 165). The acknowledgement of human relationships and their impact on outcomes adds authenticity to the process and strengthens the legitimacy and possible authentic transfer or application to other contexts of a study structure. By authentic, I mean sometimes messy and not always the same. I recognize the conflict between reproducible from a natural sciences perspective and reproducible from a social sciences perspective. People and their complex natures cannot be removed from the equations. Heron and Reason (2006) discuss action research as a “practice of co-operative inquiry”. In this way research is conducted “with people rather than on people” (p. 144).

Not only can teaching be isolating and stressful but the isolation can also prevent reforms in education from taking hold (Flinders, 1988). By contrast, action research, as defined by Lewin (1947a) is a systematic spiral of “planning, fact-finding and execution” (p. 149) and can be a tool to address both ideas of developing supportive relationships and implementing shifts in pedagogy for practicing teachers. In this way, action research can act against some of the isolating effects of teaching. Kemmis, McTaggart and Nixon (2014) note that classroom action research was strongly influenced by the progressive educational movement. As progressive education is a fundamental notion of the school where I conducted this research, it makes sense to embrace a research practice that is in alignment with the philosophy of the school. The key features of action research or the ‘spiral of self-reflection’ identified by Kemmis, McTaggart and Nixon (2014) are:

- *planning* a change
- *acting* and *observing* the process and consequences of the change,
- *reflecting* on these processes and consequences, and then
- *re-planning*
- *acting and observing*,
- *reflecting*, and so on... (p. 18, Italics for emphasis in the original).

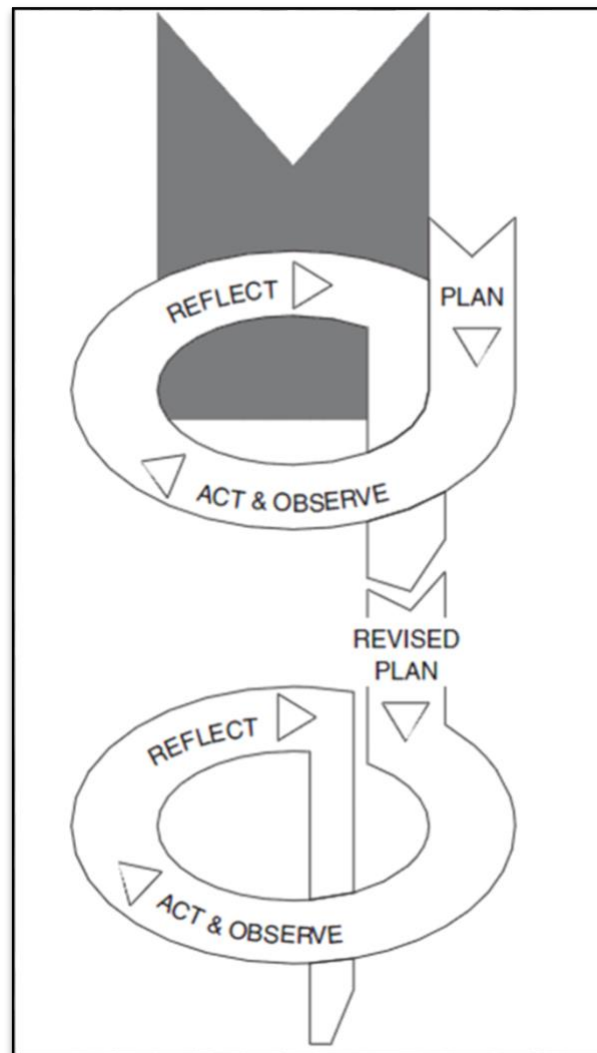


Figure 5: The action research spiral (Kemmis & McTaggart, 2005, p.564).

Figure 5 is a visual representation of the action research spiral from Kemmis and McTaggart (2005). The arrows inside the diagram help to illustrate the motion or progress as a group moves from planning to acting and observing and then on to reflection. The spirals themselves can continue indefinitely, and although all the steps (or stages) are important they often occur out of order and bleed into one another.

Although, the first step is usually planning, sometimes you might begin with observations and then reflect on what changes might be necessary. As Mitchell (2009) notes in his discussion on the benefits of collaborative action research “...when engaged in professional development, teachers learn best from other teachers, and that problem-solving and creativity are enhanced by diverse groupings which create collective wisdom that surpasses individual expertise” (p. 345). This was highlighted during the third focus group, that what we were doing as teachers reflected what we wanted the students to be doing. I designed our research to follow a cycle of discussing, planning, observing and reflecting, while sustaining the simultaneous action of teaching. As has been said humorously, making changes in education is equivalent to repairing a Jumbo Jet in flight.

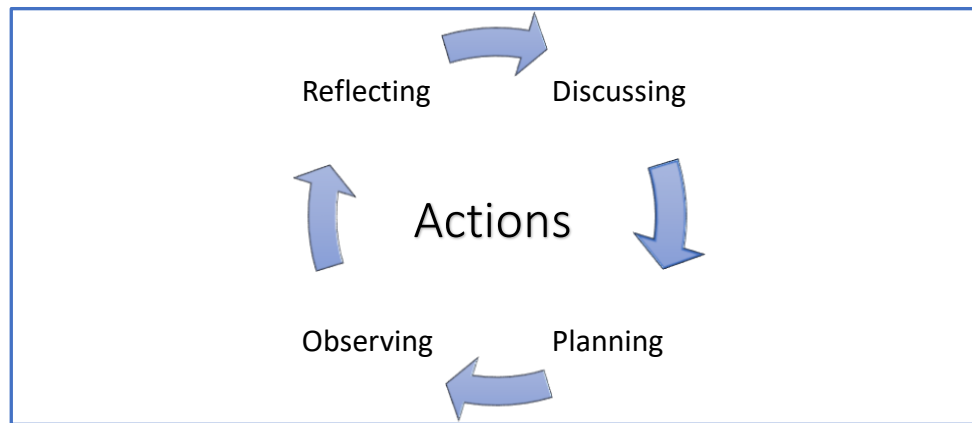


Figure 6: Research Cycle

Figure 6 is a visual representation that I created to help describe the process this research group followed during our CPAR project. The action of teaching in the centre was already in progress when the study began, and as practitioner researchers know, change is a constant in the practice of teaching. In this manner we were able to constantly assess our goals and progress, reflecting along the way. Actions here were defined as the changes in the craft of teaching practice in response to the discussions and the planning that continued throughout the study; hence its presence in the centre of the figure. Some larger action plans were made at the conclusion of the study. Some changes were more obvious, like lesson plans and

curriculum documents. Others were more qualitative, through increased conversations in the playground between colleagues or the building of a sense of comradery in the team of practitioner researchers.

What made CPAR a good fit for this study? As a longstanding member of this school community I would find it challenging to separate myself from the research, but because of this unique insider position I was well situated to collect data while embedded in their community. For this reason, the use of the first-person narrative is maintained throughout this description of the process, as it is important to acknowledge and at times distinguish my voice from the group voice. My own education, career and life choices have been significantly shaped and influenced by my experiences within this school. My teaching journey began through experience in their classrooms and led to my academic pursuits in progressive education to understand why it resonated with my beliefs. Kemmis, McTaggart and Nixon (2014) propose “...that participants in social and educational life can do research for themselves” (p. 5). They, in fact, support that insiders have a view and ability to see what outsiders cannot, and their connection to the sites of practice give them an advantage. There are five things they identify that only participatory research can do, which we will revisit throughout the discussion chapter to see how this group of practitioners grappled with CPAR:

1. Only participatory research creates the conditions for practitioners to understand and develop the ways in which practices are conducted ‘from within’ the practice traditions that inform and orient them.
2. Only participatory research creates the conditions for practitioners to speak a shared language, using the interpretive categories, and joining the conversations and critical debates of those whose action constitutes the practice being investigated.
3. Only participatory research creates the conditions for practitioners to participate in and develop the forms of action and interaction in which the practice is conducted.
4. Only participatory research creates the conditions for practitioners to participate in and develop the communities of practice through which the practice is conducted, both in the relationships between different participants in a particular site or setting of practice, and (in the case of a professional practice) in the relationships between people

who are collectively responsible for the practice (whether as members of a professional body or as professional educators or as researchers into the practice).

5. Only participatory research creates the conditions for practitioners, individually and collectively, to transform the conduct and consequences of their practice to meet the needs of changing times and circumstances by confronting and overcoming three kinds of *untoward consequences* of their practice, namely, when their practices are
 - a. *irrational* because the way participants *understand* the conduct and consequences of their practices are unreasonable, incomprehensible, incoherent, or contradictory, or more generally because the practice unreasonably limits the individual and collective *self-expression* of the people involved and affected by the practice,
 - b. *unsustainable* because the way the participants *conduct* their practices are ineffective, unproductive, or non-renewable either immediately or in the long term, or more generally because the practice unreasonably limits the individual and collective *self-development* of those involved and affected, or
 - c. *unjust* because the way participants relate to one another in the practice, and to others affected by their practice, serves the interests of some at the expense of others, or causes unreasonable conflict or suffering among them, or more generally because the practice unreasonably limits the individual and collective *self-determination* of those involved and affected (p. 5, italics in the original).

These five things will be used in the discussion chapter to highlight how this group of practitioner researchers grappled with the research. CPAR facilitated this process of reflective inquiry into our shared practices and allowed this group of practitioners to evaluate and improve upon their *sayings, doings, and relatings* in order to better understand 21st Century skills and progressive education.

3.3 CONSTRUCTIVIST GROUNDED THEORY

Glaser and Strauss (1967) developed grounded theory to construct theory grounded in data (Corbin & Strauss, 2015). Grounded theory can be used with qualitative research as an inductive method of inquiring into the data collected. “Thus, grounded theory is a qualitative research design in which the inquirer generates a general explanation (a theory) of a process, an action, or an interaction shaped by the views of a large number of participants” (Creswell & Poth, 2018, p. 133). Creswell and Poth (2018) refer to Strauss

and Corbin's (2015) definition and use of grounded theory to generate theory from the data collected for qualitative studies. "A key idea is that this theory development does not come "off the shelf" but rather is generated or "grounded" in data from participants who have experienced the process" (p. 133). Charmaz (2014) describes it this way, "...grounded theory methods consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories from the data themselves" (p. 1). Some researchers found traditional grounded theory too structured and close to positivism, or truth experienced through reason and logic, and moved toward a more emergent theory. "Constructivist grounded theory highlights the flexibility of the method and resists mechanical applications of it [grounded theory]" (Charmaz, 2014, p. 13). This flexibility and responsiveness of CGT matched the cycles of reflection and action of the practitioner researchers and they followed the CPAR methods, "... in the constructivist approach, Charmaz emphasizes theory development resulting from a co-construction process dependent upon researcher interactions with participants and field" (Creswell & Poth, 2018, p. 136). This move allowed for participants' experiences to be respected and understood in relation to particular circumstances.

I assume that neither data nor theories are discovered either as given in the data or the analysis. Rather, we are part of the world we study, the data we collect, and the analyses we produce. We construct our grounded theories through our past and present involvements and interactions with people, perspectives, and research practices (Charmaz, 2014, p. 17).

This view of constructivist grounded theory matches well with that to which this research aspired; to connect the activities of the practitioner researchers to the progressive philosophy of the school in order to reflect and evaluate the research groups activities and practices. "Proponents of these persuasions share the goal of understanding the complex world of lived experience from the point of view of those who live it" (Schwandt, 1998, p. 221).

3.4 USE OF CONSTRUCTIVIST GROUNDED THEORY WITH CRITICAL PARTICIPATORY ACTION RESEARCH

Both constructivist grounded theory (CGT) and critical participatory action research (CPAR) recognize the role of a group to create and experience their environments (Creswell & Poth, 2018; Kemmis et al., 2014). CGT and CPAR also align with progressive education and the view of students as active participants in their education, not merely empty vessels to be filled (Freire, 2000). There are however tensions that exist which relate to the preconceived notions of the researchers, and the amount of influence these notions play in the design and execution of the study.

Rather than affirming the importance of teachers engaging in traditional academic research—this would be merely the first negation in a Hegelian sense—we support the development of teachers as grounded in something altogether new—the negation of the negation—wherein the process of inquiry and learning becoming integral within the classroom contexts are continuously informed and grounded by the realities that students and teachers face in schools and in the broader society (Kincheloe, McLaren, Steinberg, & Monzo, 2018, p. 427).

These also mirror the same tensions that exist in progressive education between an emergent curriculum and the expectations or control a teacher exerts over a class group. Grounded theory seems to imply that a researcher should enter a field of study without any preconceived ideas or expectations. Not only does this seem impossible, as all humans have ideas, whether or not they are well researched, but it is also almost impossible for a university student completing a dissertation to begin with a blank sheet. Most university programs require a proposal, such as a detailed literature review, before a study will be ‘granted’.

Some researchers have used multiple methods together in a form of bricolage. ‘Bricolage’ means construction from a wide or diverse range of available items. It can be used here to understand how qualitative researchers sometimes utilize multiple methods to study and interpret their data and to conduct their study (Kincheloe et al., 2018). “In its hard labors in the domain of complexity, the bricoleur views research methods actively rather than passively, meaning that we actively construct our research methods from the tools at hand rather than passively receiving the “correct,” universally applicable methodologies” (p. 433). This view of constructing research methods aligns with the social constructivist, and progressive,

view of education to which this school and this study aspire. It recognizes that neither practitioner researchers nor students have the 'correct' answers, rather that they are built in active participation and cooperative work.

Grounded theory is not without controversy, as its originators, Glaser and Strauss, diverged significantly over time. Glaser attacked Strauss and Corbin for taking a too prescriptive, or formulaic approach. "Glaser takes a problematic position on emergence because of his dictum that researchers view data with no preconceptions" (Charmaz, Thornberg, & Keane, 2018). Charmaz (2014) is able to interpret grounded theory through a constructivist lens and acknowledges a researcher's "...preconceptions rather than denying them" (Charmaz et al., 2018, p. 710). This helps address the challenge of pretending researchers are a blank slate and recognizes the reality that we all enter situations with histories and preconceived notions. "The constructivist version of grounded theory assumes that people construct both the studied phenomenon and the research process through their actions" (Charmaz et al., 2018, p. 706). Together, as in progressive education, a group builds a shared understanding based on their *sayings*, *doings*, and *relatings*. In this way CGT helps to recognize that complexity of dealing with different people, who enter a research project with their own sets of knowledge and understandings, "... constructivist grounded theory emphasizes multiple realities, the researcher and research participants' respective positions and subjectivities, and situated knowledge and sees data as inherently partial and problematic" (p.713).

There exist some challenges in using grounded theory and action research together, as they are often viewed as dissimilar approaches (Dick, 2007). Dick goes on to highlight what action researchers and grounded theorists can learn from each other.

I suggest that action researchers can learn from grounded theorists by being more explicit about the actual theory they develop and how they do so. Grounded theorists can learn how to involve

their informants more directly in the research process, how to collect and interpret data more economically, and how to involve themselves more directly in action if they wish (p. 399).

In this way the research conducted for this study followed Charmaz's (2014) interpretation of CGT to deal with the data collected through the CPAR cycles of reflection and action that the research group followed. This allowed for the research to be "...responsive to the situation" (Dick, 2007, p. 400). The responsiveness of action research matches the 'emergent' language often used in describing grounded theory methods. Other researchers have used various forms of grounded theory with participatory action research (Butterfield, 2009; Redman-MacLaren & Mills, 2015; Teram, Schachter, & Stalker, 2005). "Grounded theory methods of explicit, systematic data generation and analysis enhance action research" (Redman-MacLaren & Mills, 2015, p. 5). Some of the tensions and differences between grounded theory and action research relate to the terminology and desired outcomes of the research. Action research by its nature pursues change, while grounded theory seeks to explain what is, or has happened in, or to develop theory (Dick, 2007). Recently grounded theory has been utilized for social justice causes, in which case the connection between action research and grounded theory can be highlighted (Charmaz, 2019; Redman-MacLaren & Mills, 2015; Teram et al., 2005).

In this research project the use of CPAR and CGT allowed the research cycles to inform the theory developed by adhering to the social constructivist view of learning and development, and through grounded theory's structure of data analysis. I created a figure (Fig 7) to show how I perceived the relationship between social constructivism, critical participatory action research and constructivist grounded theory. Social constructivism was the context within which the school and progressive education sits, the site of the study. Critical participatory action research was the method by which the research group worked together to change their practice. Constructivist grounded theory was the tool I used as a doctoral study for gathering and analysing the data we generated together. CPAR was viewed at the most

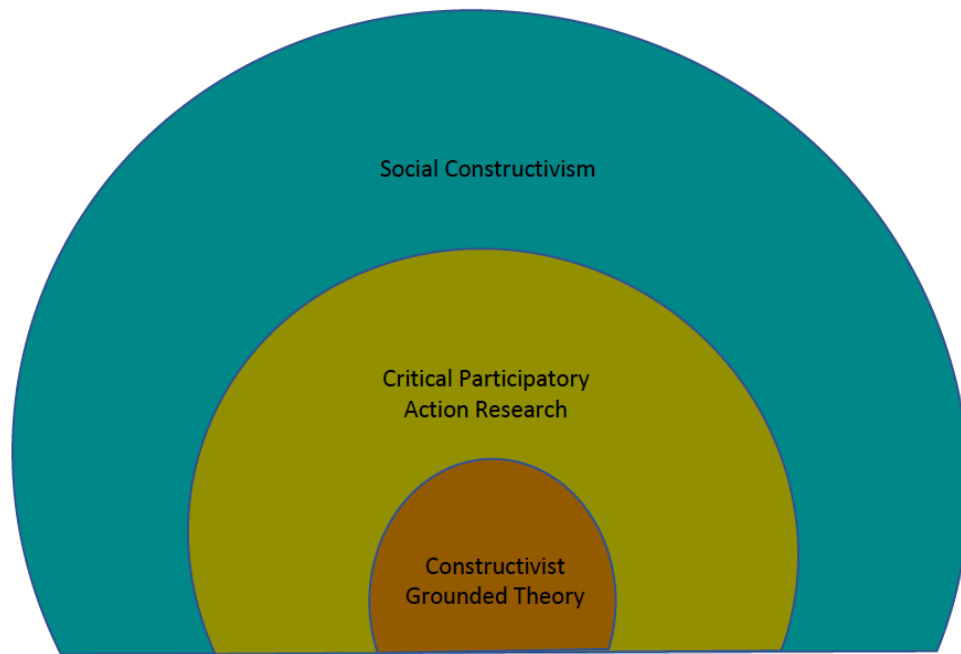


Figure 7: The relationship between social constructivism, critical participatory action research and constructivist grounded theory

appropriate method for conducting the research within a social constructivist theoretical framework. According to Kemmis, McTaggart and Nixon (2014) CPAR allows practitioners to critically reflect on their sites and situation of practice in order to identify changes they see as necessary. Once those changes are identified, CPAR then goes on to provide a structure through the action research spirals to make those changes in a social setting. What follows is a detailed description of the school and the participants where the research was conducted.

3.5 DESCRIPTION OF THE SCHOOL

The school is presented with a description of

- a) the school background,
- b) the teachers,
- c) the curriculum, and
- d) the context of my relationship to the school.

School background

Before presenting the process of the research it is important to understand the who and where of this study, the specific setting and the nature of the school where it was conducted. Open Horizons is an independent school in the south-central United States. It is accredited through the National Association of Independent Schools (NAIS) and the Independent School Association of Central States (ISACS). This requires a rigorous self-evaluation cycle that occurs on a seven-year loop. At the time of the study there were forty-seven students enrolled in pre-primary through high school. There were five full time core teachers who teach mixed grade groupings: Pre-school to Kindergarten, lower elementary (grades 1-3), upper elementary (grades 4-6), middle school (grades 7-9), and high school (grades 10-12). There are additional enrichment teachers and teaching assistants, some of whom volunteer in exchange for tuition for their children. The school is located in a small tourist town with a population of approximately 2,000 people. The tuition ranges from \$4,750 to \$5,750 per year, and approximately 75% of students receive some kind of financial aid or scholarship assistance.

Teachers

All teachers, both core and enrichment, who were present at the time of the research, were invited to participate in the study. All five core teachers opted to participate plus three enrichment teachers and one administrator. One enrichment teacher and the administrator were present at only the first focus group. Below is a chart that represents some background data on the research participants. What is not

represented is the years of their alternative experience and expertise that cannot be distilled into a simple chart. The collection of this data was a source of some consternation for the staff and myself, and after the semi-structured interviews I went back and ask the research participants to answer a few more qualitative questions about their choice to teach at a non-traditional school. I think it is interesting to note that only two participants in the research had formal education in the teaching profession.

Teacher	Years of teaching	Education	Years at this school
Researcher (F)	20	BS Environmental Studies MA Education	11
Core 1 (F)	12	BA History, MA Environmental Studies	5
Core 2 (M)	23	BFA, MS Ed.	1
Core 3 (F)	8	BA English, MA French	1
Core 4 (M)	10	BA Political Science, MA Conflict Transformation	2
Core 5 (F)	29	HS Diploma, Montessori Trained (continuing development credits)	24
Enrichment 1 (M)	12	HS Diploma	1.5
Enrichment 2 (F)	5	BA English Literature, MSc Creative Writing	4
Enrichment 3 (M)	22	BA Political Science	17
Administrator (F)	25	BA Fine Arts	44

Figure 8: Participant data

Some of the responses to the follow up question of why they choose to teach at this particular school include phrase like “mission alignment with my views on education”, “support, autonomy, and colleagues”, “I believe in the mission and philosophy of teaching”, “able to develop curriculum that is meaningful to ‘us’ both [students and teachers]”, and “I’ve always loved the idea of an independent school and the freedom it allows for teaching the whole child”. Although these statements are varied, they reflect the importance of the alignment of the mission with their views of education, development and personal beliefs.

Curriculum

The school curriculum is integrated with courses that are designed around themes and overarching questions, rather than academic subjects. Some blocks of study are undertaken as a whole class, while others are in small groups or even as independent study. All students receive a Narrative Conference Report (NCR) four times every year, documenting the class activities and sharing each individual student's academic and social growth, strengths and challenges. The high school students also receive a numeric or letter grade for each course that they take, in addition the NCR. Three times a year the parent, student and teacher meet to discuss the report and set individual goals for the student. The school's goal for students is to be able to participate in their own learning and think of meaningful ways to demonstrate their new knowledge and competencies. There is some tension between the school's goals and the perceived need for high school transcripts that can be used for college admission applications, although it should be noted that the current transcripts are accepted at all colleges in the country. This research design offers the school the opportunity to create a framework for meaningful assessment and measurement of its ways of teaching and specifically the development of its core skills of communication, collaboration, critical thinking, creativity, and character. Additionally, this research design offered the research group the flexibility to allow the research to unfold rather than to achieve a strictly predetermined outcome. Through this structure of cyclical reflective practice, we worked together to answer meaningful questions about our practice.

Context of my relationship to the school

The context of my research and my relationship with the school mean that it is almost impossible to separate my own history from the last twenty years of the school's history. It therefore makes sense to recognize and embrace the complexity of this relationship through the design of the research. "Participatory action research (PAR) more than a research methodology (Carr, 2006), brings people

together to reflect and act on their own social practices to make them more coherent, just, rational informed, satisfying, and sustainable” (McTaggart & Curró, 2009, p. 89). Through the CPAR model, we (the research team) can identify a language process to document and articulate our shared journey. Fernandes and Tandon (1981) argue that it is this idea of *process* over *product* that separates participatory research from traditional research methodologies and makes it appropriate for this particular study. “Unlike the traditional approach which is concerned with quantitative outcomes and goal-directed action, participatory research gives greater importance to qualitative data and process-oriented action” (p. 9). In this way CPAR is also coherent with postmodern traditions that value multiple or shared realities.

3.6 THE SPIRALS OF RESEARCH

An introductory meeting with the entire teaching staff was held to discuss the background of this research and lay out the timeline for the study. The study included three focus group meetings, teacher observations of each other, a week of in-service dedicated to implementing desired changes, and individual semi-structured interviews with the participants. Figure 9 is a chart that documents the meeting schedule and interviews dates. The 16th March meeting was cancelled because two of the core teachers were absent and also the members present had not yet completed their observations of each other’s classes. The research group decided they needed more time before meeting to discuss their observations of each other.

Meeting	Date	Length (min)	# People
Focus Group 1	24/02/18	63:13	10
Meeting cancelled	16/03/18	5:58	7
Focus Group 2	28/03/18	62:44	6
Focus Group 3	18/04/18	79:57	7
In-Service Days	4-13/06/18		9
Interview 1	13/06/18	23:06	
Interview 2	5/07/18	6:11	
Interview 3	14/07/18	22:43	
Interview 4	14/07/18	17:32	
Interview 5	14/07/18	22:43	
Interview 6	17/07/18	12:01	
Interview 7	20/07/18	24:50	

Figure 9: Meeting/Interview dates, length and attendance

Focus Group Meetings

Focus group meetings are in depth group interviews often used in qualitative research (Stewart, Shamdasani, & Rook, 2007). The goal of group discussion on the research topics is to generate richer data than single or individual interviews. For this study it was imperative that the research group members discuss and share the practice taking place in their individual classrooms. This was done to view the alignment and consistency across levels within the school. The ‘focus’ in focus group meetings is intended to gather data on a particular experience or situation. “A second signature aspect of a focus group is the objective to better understand the group dynamics that affect individuals’ perceptions, information processing, and decision making” (Stewart et al., 2007, p. 9). Focus group meetings were a necessary element for the CPAR cycles, the research group needed a forum to discuss the process and make the necessary changes and adjustments to the research, to reflect and strategies the planning and re-planning

of what we were doing together. For this research the meetings took place after the students had left campus in one of the high school classrooms that contained a large conference table, projector, and white board.

Planning a change: Start of first spiral

The first focus group took place at the teacher meeting regularly scheduled for Friday afternoons. At the beginning of the meeting I reminded the research group that I was making an audio recording and to be mindful of not talking over each other, or too fast. I introduced the complexity of teaching and measuring 21st Century skills and the idea of comparing the school's current list of life-skills to the 4Cs of communication, collaboration, critical thinking and creativity, and reflecting on how the concepts of life-skills and the 4Cs complement each other and might be merged. I asked the group how life-skills might be observed in classroom practice. We discussed the challenges of documenting and observing skills. The following is the list of guiding questions I presented to get the discussion started related to the life-skills that the school teaches.

Important Questions:

- How does the school articulate why students will be better served through a 21st Century approach to education?
 - What do we say we do?
 - Do we do what we say we do?
 - What do we need/want to change?
 - How can we assess if we are doing it?

In small groups (pairs), we will look at (observe each other) how 21st Century skills are addressed by individual teachers at the various levels:

- What are the 21st Century skills of this course/block/lesson?
- How is feedback on these skills given?
- How often are students asked to articulate these skills?
- Is growth in these skills measured? (How? By the teacher and/or the student?)
- How can teachers (students) develop better ways to assess and measure 'skills'?

Figure 10: *Discussion questions*

I gave these questions to the research group as a loose framework to get the ball rolling. Knowing these teachers, their dedication and our ability to work synergistically, I imagined the list of questions would evolve and change as we worked together. To remain true to ideals of social constructivism and the methods of CPAR means that predetermined outcomes, or even questions, are disingenuous to the process (Fernandes & Tandon, 1981). I did feel however that we need a starting point for discussion.

Altrichter and Posch (1989) call the first stage in practitioner research '*naming and framing*' in CPAR Kemmis, McTaggart and Nixon (2014) it is the reconnaissance phase, where a shared language or cultural discourse is established. It is the necessary establishment of who we are and what we are doing together, or how this particular group understand and interpret what we are doing together. This first focus group

meeting addressed the *sayings* of the group and helped us come to an understanding or agreement on the language we used together.

Act and observe

After the first focus group the teachers partnered up in order to observe each other's teaching and assessment of the life-skills and other 21st Century teaching strategies. There was no formal structure given to the observations, no check sheet or questionnaire to fill out. The teachers were asked to observe each other, meet to discuss their observations and plan some comments to bring to the next focus group meeting. Some teachers made more dramatic immediate changes to include lessons that highlighted the life-skills while others did not. There was some initial hesitation, and a few research group members came to ask for guidance on how to conduct the observations. My feedback was to encourage the partner teachers for suggestions from each other as to what help they would like from a visiting teacher in their room. I felt this made some of the research group members anxious, as they wanted more specific direction as how to carry out the observations. I made note of this in my journal with the intention of bringing it up at the next focus group meeting (personal journal, 26th February 2018).

Plan, reflect, re-planning: Start of second spiral

There was a mini focus group meeting mid-March and although it was short in length it produced some refocusing of some of the observation strategies and I had prepared some questions for this meeting that the research group members took to assist them in the observation of each other:

- What were some highlights?
- What did you see (or hear about) that you might want to implement in your classes?
- What do we think is missing?
- In writing your conference reports how did you think about life-skills/21st century skills?
- Handouts of life-skill / 5C examples
 - Ideas for how to incorporate, grow, use these
 - Students make a fresh set

The theme of the second (official) focus group meeting was the question; What do we do? Kemmis and McTaggart (2005) point out that “[c]lassroom action research typically involves the use of qualitative interpretive modes of inquiry and data collection by teachers (often with the help from academics) with a view to teachers making judgements about how to improve their own practices” (p. 561). In this way, together, we reflected on our actual practice and together identified strengths and weakness in the area of assessment and feedback of our life-skills. This focus group meeting began to delve more deeply into the *doings* of the school and continued to develop our *sayings*.

Act and observe

Again, the research group members partnered up to observe each other in the classroom. There were things they were trying out in their classrooms that they wanted feedback on, and there were more discussions happening outside of official meetings geared toward what we were doing together. It is during this time of acting and observing that the lines or boundaries between research and the everyday running of the school became the messiest or somewhat fuzzy. I could not capture every moment, or discussion that happened. Many of the research group members were having conversations and planning improvements outside of my presence. In reflection asking the participants to keep their own research journals would have strengthen the data collection in this portion of the research, for it is hard to adequately document what was happening when I was not present.

Plan, reflect, re-planning: Start of third spiral

The third focus group meeting considered what changes we had made to our practices and how to document them and secure their continuation or institutionalize them. We also began to talk about the need for some structural changes, and curricula materials that would assist the school to articulate this

process. The question we reflected on; How can we improve what we do? At this focus group meeting the *sayings*, *doings*, and *relatings* were more evident as we were in a groove of agreed upon language, goals, and ways of being together.

Act, reflect, re-plan again: In-service, A new plan

The administration of the school allowed me to design the schedule for the in-service at the end of the school year. The teachers are contracted to work for two weeks after the students leave campus in order to debrief the year and make plans for the next. During this in-service time, we reflected on the research and changes in teaching strategies over the semester and decided on some changes to curricular materials and meeting schedules in response. We worked together to design new templates for the Narrative Conference Reports (NCR), used backward planning to design some elements of the following year's curriculum around the 5Cs we had identified as central to the school's philosophy, and designed a rough plan for next year's professional learning and development. See Appendix D for the in-service schedule. Since this in-service time was a blend of both the CPAR and the school business the meetings were run as workshops and although no direct transcript was kept, I kept notes in my journal on the progress we made and reflected on my perceived challenges. Each day was organized around topics that we had identified that required work through our focus group meetings. To open the in-service, I asked three questions:

1. What went well?
2. Looking at next year, what improvements/changes do you want to make?
3. What personal goals do you have for the year?

On day two we broke into two groups to accomplish the objectives we had identified throughout the focus group meetings. Each group was charged with reporting back with answers to the following:

Objectives

First: ways to stimulate and track conversations around professional development of the 5 Cs

- schedule
- topics
- how to document
- Cs manual/curriculum

Second: Ways to improve on the consistency and coherence of the conference reports

- Take a look at our first conference report
- What needs to change
- How to incorporate the 5Cs
 - Definitions
 - Student engagement

Figure 11: *Small Group Objectives*

We began each morning with a meeting to report on progress and redefine our goals for the day. The teachers then broke off into their groups to work on their projects together. Reflected in my journal were moments that I felt unimportant and unnecessary in the last week. I would pop in to ask the teachers how they were doing, and sometimes be drawn into a discussion, but mostly they worked without my influence at this point. It was a strange feeling. I wanted to help and yet, knowing I was leaving the school, I felt it best that they own this part themselves. Also, they appeared happy and engaged in the challenging problems they were working on. At the end of the in-service we had a new template for the NCR, a schedule

for professional learning and development meetings, a start on a new curriculum framework, and some templates using backwards planning and essential questions for project work.

Semi-structured interviews

At the conclusion of the in-service time I conducted individual semi-structured interviews with seven of the practitioner researchers. These were the research group member who had participated in the 'action' portion of the research project, they had partnered up to observe each other and worked together to change something about their teaching and assessing of 21st Century skills. Semi-structured interviews are designed to engage the research participants into the "topic under study" (Galletta & Cross, 2013, p. 45). They can include a range of questions to elicit the participants experiences during the study. To begin I made sure to remind participants of the purpose of the research and asked permission to record the interview. The questions were designed to establish comfort first and gather general impressions before moving on to more detailed questions for clarification. It was important to strike a balance between probing for information and allowing the participants "narrative" or story of their experience to develop (Galletta & Cross, 2013, p. 48). I wanted to know how individual research group members felt about the process and investigate their thoughts on participatory research in general. It was hoped that questions asked would reveal the participants experience during the process and be used to analyse the data that came as a result of the interview (Charmaz, 2014). The questions were designed during the in-service time after the focus group meetings had taken place. These interviews took place after the in-service in order to help deconstruct and reflect on the process. "Structured interviews engage people with open questions. In these interviews, the researcher is mainly listening and probing, and it can be generative for the interviewee" (Bradbury, Lewis, & Embury, 2019, p. 20). I invited each of the members of the research group to lunch off campus because I wanted a relaxed atmosphere where we would feel free to talk about the experience. The questions were more general to begin with and moved to the more specific. Three of the interviews

happened on campus due to time constraints. I met with each teacher with the intention of deconstructing the process and asked each of them the same list of questions. These meetings were recorded and transcribed. At the end of these meetings I also asked each teacher for some background information on their education and teaching experience. The teachers' responses are discussed in detail in the findings and discussion chapters.

Included below are the questions used for the interviews.

1. How are you feeling about this process?
2. What have you enjoyed?
3. What have you struggled with?
4. Is there something you wish we had done?
5. What do you hope to come from this?
6. How has this helped you as a teacher/professional?
7. What are your major concerns as we move forward?
8. What has made you engaged with the process?

Figure 12: *Semi-structured interview questions*

3.7 DEALING WITH DATA AND ANALYSIS

Constructivist grounded theory (CGT) was used for data analysis (Böhm, 2004; Charmaz, 2014; Glaser & Strauss, 1967; Humble & Radina, 2019) and as noted by Dick (2007) is sometimes used by doctoral students new to action research. Using CGT in the data analysis allowed for the data to inform the research. During the transcription process repeated ideas coalesced and themes made themselves clear. Coding is central to grounded theory, it allows the researcher to “define what is happening and begin to grapple with what it means” (Charmaz, 2014, p. 113). Close reading and listening for mood and intonation were used to code

the transcripts and identify themes to be discussed in the following chapters. This was the first round or initial coding phase. Once the list of initial codes was generated, I was able to look back over them to group similar codes or find themes that tied topics together. I did this through asking questions of the data, and used reflective memo writing to document the questions or thoughts to describe the selected codes (Böhm, 2004; Charmaz, 2014). Breaks were taken between readings of the transcripts to see if the same codes and questions held true over time. The audio recordings were listened to, while reading the coded transcripts, to check for alignment between the tone and mood of the coding and the recording. Charmaz (2014) notes that coding will often reveal the tensions in the research, or the distance between what is said and what is actually enacted. These tensions can direct the study.

As the research facilitator, what I sought through constructivist grounded theory (CGT) were characteristics that could signpost what we did as members of a research group that made our critical participatory action research (CPAR) cycles meaningful to the group and the school. That is a cycle that produces some actionable products, rather than stalling out, or devolving into complaint sessions. Some stalling and complaints are necessary in the process as they add to discussions and identify problems to solve or address. These distinctions could identify and explain some of the connections between ideals and practice, or what we as a research group wanted to do and what actually happened during our study. As the research facilitator, I was consistently sorting the data into categories as we moved through the cycles of CPAR. In looking back through the lens of CGT, there was always a clear distinction between the concrete products we created and the ways we went about getting there through Product and Process. The haze or complexity that was more challenging to name was Power. It stood out in words like empowerment and authenticity, in the discussion of student voice, in the teachers not wanting spying eyes controlling their observation-practice of each other, in the curricular design of allowing students and teachers to plan their own course of study, and in my role as the research facilitator. It was hard to decide which to place first in the findings,

because it is difficult to avoid valuing one over the other. Is one more crucial or central? In this research, Product and Process seem to be spinning in a perpetual circle, but both sit within the influence of Power that exerts its force in all directions. Framing all of this are the people, structures and histories which influence the Product and Process. These influences are not limited to, but include, the school, curriculum, teachers, families, society, media, politics and the students themselves. While Product and Process had clear boundaries, Power seeped into both, and seemed the connective force in the study. A picture or image can often convey meaning where words fail, and many learners, myself included, are assisted by visual representations of complex relationships (Butler-Kisber & Poldma, 2010; Margulies & Maal, 2002). Several social theories are rendered more memorable due to their visual representation such as Bloom's Taxonomy (1956) and Maslow's Hierarchy (1943). I have included Maslow's pyramid that for me clearly lays out the needs of the individual and the 'levels' of importance of those needs. Although Maslow did not create the drawing, for me it is much easier to understand the hierarchical relationship with the visual representation than the explanation alone.



Figure 13: Maslow's Hierarchy of needs (simplypsychology.org/maslow.html)

Through reading, re-reading and listening to the transcripts and recordings I gained a picture, or wider perspective, into what worked, what the research group struggled with, and what the group hoped to come from this research. A challenge of qualitative research and specifically CPAR, is that it is dependent on the people involved, the relationships developed through the research, and the ability of the research facilitator to reflect on circumstantial evidence gathered. As Torbert & Taylor (2008) note, the research includes the researcher, the people with whom you study and the place studied, "...it is a form of research that is conducted simultaneously on oneself, the first-person action inquirer, on the second person relationships in which one engages, and on the third-person institutions of which one is an observant participant" (p. 239). There is a challenge in sorting through the transcripts to separate one's own interpretation and goals from the research group members' experiences and the evidence of what was accomplished. The process itself was complex and messy but worth close scrutiny for the purpose of transparency, authenticity and transferability. I lean on Biesta (2016) here to support our messy process, as he delves into the complex relationships that exist within the field of education. As he puts it, education is not "...a situation in which there is a perfect match between 'input' and 'output' ... because education is not an interaction between robots but an encounter between human beings" (p. 1). It is communication that lies at the heart of the process and this research group followed Biesta's idea of "communication-as-participation" (p. 5). His ideas here are based soundly in the works of Dewey (1938, 1966) who has also been influential on our research groups reflection on education and its current state.

Below, as an example, I have included the table that resulted from the axial coding I created related to the theme of Products. The words in the table represent some of the initial open codes created, they were they sorted by looking for questions that tied them together into groups in the process of axial coding (Charmaz, 2014; Humble & Radina, 2019). Axial coding is the linking or grouping of codes to create or identify relationships in the data (Simmons, 2017). These axial codes were identified through the reflective memos

generated during the different rounds of coding. For example, the 5Cs, life-skills, PBL, and observations fit under the theme of product and then the question of ‘what are we trying to address?’, the answer to which was 21st Century skills. The larger themes of Product, Process and Power were created as a result of looking at the many categories and trying to find what tied them together. There were several iterations of different overarching categories before these three were selected. Some of the other ideas included 21st century skills, PLD strategies, and societal forces (neo-liberal agendas). The terms products (or teaching documents) and process seemed key and turned up in the *sayings* of the group frequently. ‘Trust the process’ being a mantra we adopted. Power seemed to underlie everything, it seeped into and created messiness in everything the we did. It was part of the structure, curriculum and relationships that existed between people and institutions or expectations. The 3Ps were chosen as they seemed to simplify and coalesce the ideas, and also felt like a nice framing against the 5Cs. The categories that the products were sorted into are the skills themselves that were our focus (life-skills and 5Cs) under the heading of 21st Century skills, the means of assessment we discussed, the ways and uses of documentation, and influences of power in relation to what we were creating.

	<i>21st Century Skills</i> <i>What we are trying to address?</i>	<i>Assessment</i> <i>How will we know if it works?</i>	<i>Documentation</i> <i>How can we communicate to others?</i>	<i>Power</i> <i>Why does it matter?</i>
<i>Product</i>	5Cs	Negatives/Challenges	Curriculum	Productive
	Communication	Checklists	Language	Responsive
	Collaboration	Scales	Structure	Important
	Creativity	Mistakes	Narrative	Continuity
	Critical Thinking	Credits	Implementation	Consistency
	Character	Positives/goals	Feedback	Feedback
	Observations	Peer	PLD	
	PBL	Self	Conferences	
	Life-skills	Teacher		
		Feedback		

Figure 14: Coding for product

Axial coding helped to tie the themes together and to organize, to code and then re-code the data. Nvivo12 was used to facilitate this process (Allen, 2017). Reflective memos were also used in coding the transcripts to record ideas, thoughts and questions while reading the transcripts. Memos are used by the researcher as “written communications with one’s self” (Simmons, 2017, p. 81) These helped to organize the codes and make connections between them. As Jamison (2019) observes, data analysis is a messy business, and open coding, axial coding, memos, lists and questions all help the researcher to sort through the mess.

These axial codes were sorted using the Nvivo 12 software, sections of the transcripts were highlight and given an original tag to describe what I thought was being discussed. Some of the larger categories were more obvious, and many of them overlapped. Included here is a screen shot of the coding for the category of ‘documentation’.

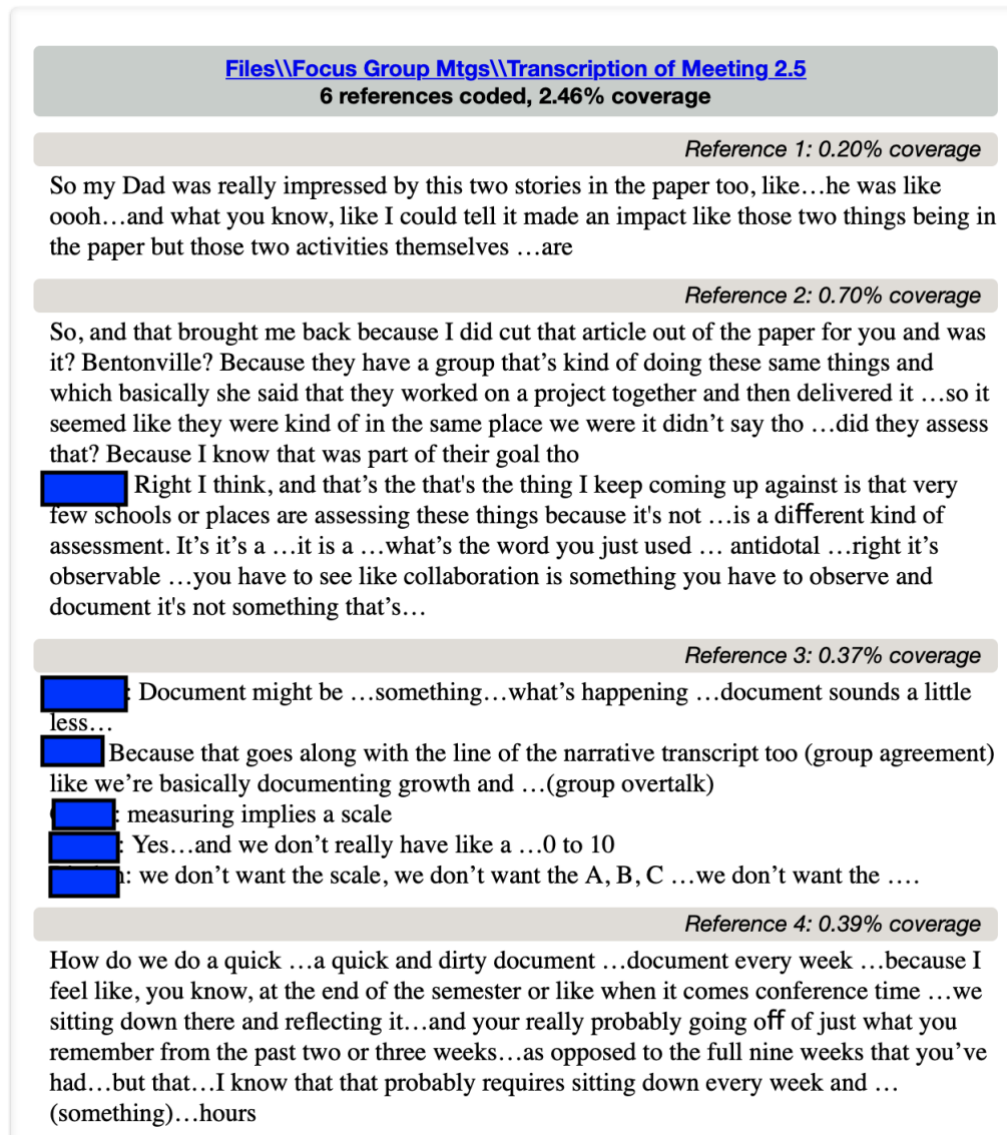


Figure 15: Screenshot of the category of 'documentation'

The larger categories had many coding selections, or even subsections. Some of the smaller codes became sorted within larger categories and appeared in fewer instances of the coding. For example, here is a screenshot of the smaller code of 'feedback', that could be considered under both categories of 'documentation' and 'power'.

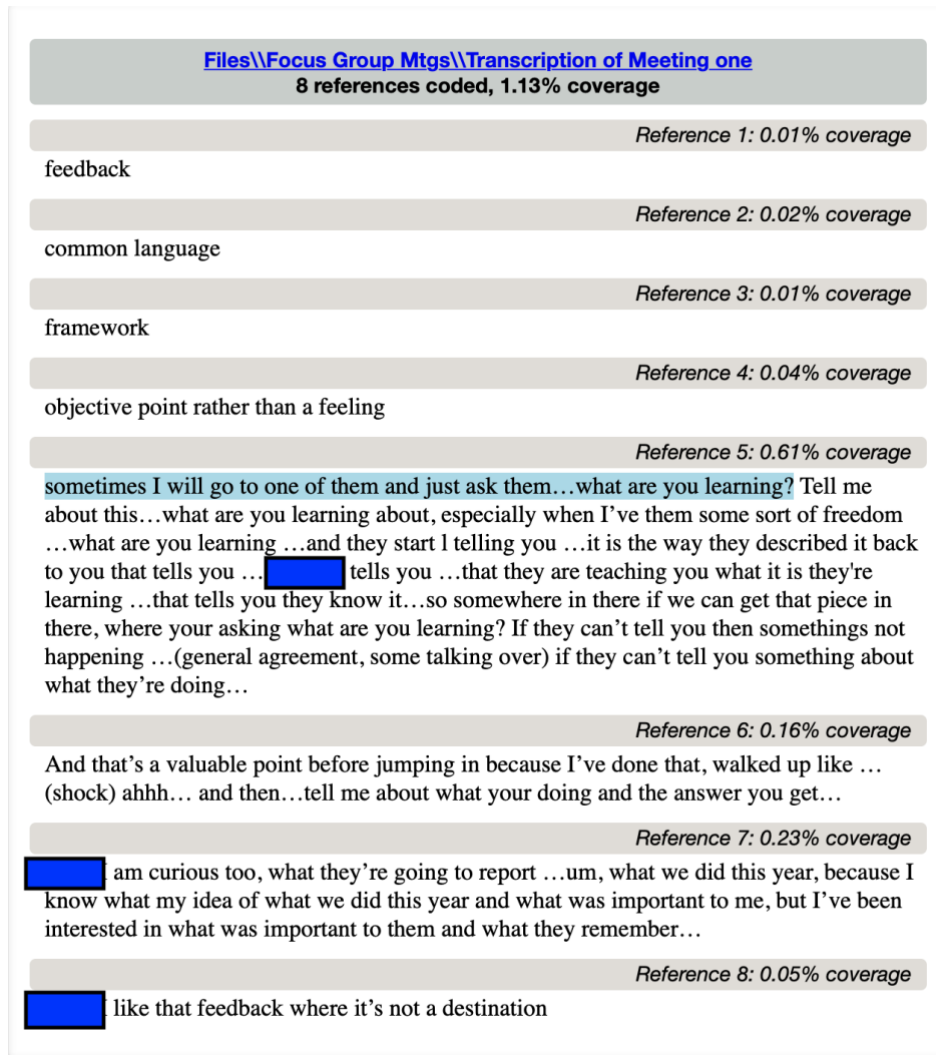


Figure 16: Screenshot of the coding for 'feedback'

In a final round of coding I followed Charmaz's (2014) suggested way of looking for topics and themes through coding with gerund phrases. Gerunds are verbs that function as nouns with the addition of 'ing'. "We gain a strong sense of action and sequence with gerunds. The nouns turn these actions into topics" (Charmaz, 2014, p. 120). This helped to identify the movement in the focus group meetings and revealed the changing beliefs and strategies of the group. In this coding I re-read the transcripts and time stamped the codes to see when moments happened and document those transitions or shifts in our discussions. These would help to answer questions in the discussion chapter around what had caused the research

group members to move to a different, or next stage, in the process. Below is a sample of the gerund coding created for the transcript of focus group one to look for shifts in the conversations:

FOCUS GROUP	CODES	OCCURENCE
ONE	Getting on the same page	10
	Involving students in their assessments	9
	Querying the role of assessments	6
	Communicating what we do [to new teachers (and others)]	2
	Improving the narrative conference report	2
	Designing a framework	2
	Gaining consistency and some standardization	1

Figure 17: Sample of gerund coding

Doctoral students utilizing action research note that it is important to keep an alignment between the research process as a doctoral student, the research groups' reflections on their own practice, and the students' experience as learners at the school where this research was conducted (Drake & Heath, 2010). It was at times challenging to distinguish or in fact separate these concepts from each other. They kept merging together. In this methodology chapter I have attempted to highlight the murkiness and the tensions that hold it together. There is an authenticity to CPAR that drives this process and without which the progress stalls and CGT helped this researcher to see what was happening in the different moments captured through the data.

3.8 TRUSTWORTHINESS

In qualitative data analysis it is often stated that themes emerged (Charmaz, 2014). I argued this is a misnomer and could better be written as themes were identified by the researcher. As researchers we may initially seek to validate our already held beliefs and assumptions (Gaventa & Cornwall, 2008). It is therefore important to be clear about my own assumptions as a researcher and what I was looking for. I sought the thread or connection between what we as a research group said and what we did; what we wanted to

happen and what actually happened, and why. There appeared, to me, to be an ever-intertwined relationship of process, product and power.

Member checking was used to authenticate the accuracy of the transcripts. These were shared with the research group members before the next focus group sessions, and they had the opportunity to review for accuracy and make comments and observations on the transcripts. All participants signed off on the accuracy of the transcripts for the focus groups and their individual interviews. Reflective analysis was used by the researcher to identify bias and to document instances of potential coercion and power imbalances. The reflective memos also serve as trail of evidence for the decision making and choices in codes (Simmons, 2017). A member of the research group, was used to check for shared understanding and interpretation of group conversations. This member was sent sections of writing that summarized the description of the methodology and a summary of the findings after the first round of coding with the identified themes. “By recognizing first-hand knowledge from first-hand experience, both action learning and action research support egalitarian and democratic values. There are “emancipatory” versions of both action research and action learning” (Bourner & Brook, 2019, p. 195). By involving the participants in the research design about their own practice it connected the changes desired by the research group to their circumstances and gave them power.

The design of the questions in the semi-structured interviews was intended to help with reliability and interpretation of the research group members’ feelings about the process. The questions were designed to probe deeply into their thoughts on the process, asking similar questions in multiple ways. I asked the research group members to reflect critically and reiterated that I wanted their real feelings good or bad, in order to address the concern that the personal relationships I had with the members would influence their feedback. I also reframed several of the questions in multiple ways to clarify the feedback. The three

themes of Products, Process and Power that were identified as a result of the data analysis, will be discussed in detail in the findings and discussion chapters.

3.9 ETHICS

The research group members know each other (and me); we discussed the importance of confidentiality and trust in relation to all topics discussed. We also discussed ways of giving and receiving feedback that is constructive and discussed ways of dealing with conflicts and stress that may arise due to being observed and discussions around personal teaching practice. Pseudonyms were used in any presentations or documents created as a result of the research. Any information which could identify the school was modified or excluded from publications. There is the risk that participating in research conducted by the researcher who was a member of staff at the school may create elements of compulsion. However, the researcher explained to the participants that there would be no consequences for participation or non-participation in the research. There is a risk to the school if something overly critical about the school curriculum or teachers arises from the research that could affect the business of the school. Care was taken to reflect on information which might compromise the school's reputation and/or which could be used to identify the participant who made the comments. During the design phase of the research ethics was applied for and approved by the University of Canterbury. See Appendix A for letters of consent from the teachers and head of school.

There is an element of potential entanglement in CPAR, and this study in particular. By researching a topic and place to which I had many connections required navigating relationships and expectations. The purpose of participatory research is "walking shoulder to shoulder with ordinary people rather than one step ahead" (Swantz, 2008, p. 31). In this way CPAR is intended to address imbalances of power, a challenge I was aware of during this study. Grant, Nelson and Mitchell (2008) refer to the challenge as "we emphasize the large

responsibility that we as researchers have in exploring our own subjectivity and in being clear and reflexive about our values and power” (p. 590). I was constantly reflective on my influence and actively worked to engage the other members of the research group in owning the process. As the foundation of CPAR is relationships, and knowledge of the community and members involved in the research is the cornerstone of building trust, my insider status and previous experiences (at the school where the research was conducted) contributed to the group seeing me as a trusted ally and not an outsider (Grant et al., 2008).

SUMMARY

Together as a research group, we participated in a nested collaboration, this researcher collaborating with the research group members, who are collaborating with the students to articulate the program. Stephen Kemmis (2005, 2008, 2014, 2018) is central to almost all the writings about the development of action research and has elaborated this theory further to include critical participatory action research (CPAR). He stipulates that there are many approaches to action research but that what they hold in common is a dismissal of an outside expert that arrives to analyse and record the happenings at a particular site, instead;

Two features are apparent:

- the recognition of the capacity of people living and working in particular settings to participate actively in all aspects of the research process; and
- the research conducted by participants is oriented to making improvements in practices and their settings by the participants themselves (Kemmis et al., 2014, p. 4).

This chapter has detailed the alignment between social constructivism, practitioner research and progressive education. It established the reasons for using constructivist grounded theory (CGT) to analyse the data and critical participatory action research (CPAR) as the methodology of the research. CPAR was defined and the process followed by this research group described. In CPAR context is key, so a description of the school and my relationship to it was highlighted. A detailed description of the research cycles followed. The different stages of the research were identified, and I provided an explanation for the choice

of focus groups and semi-structured interviews. Also included was the in-service time that was a blend of research and normal school practice. CGT was used for the data collection, analysis and coding techniques used were defined and explained for relevance to this study. Trustworthiness was addressed in relation to its challenges with qualitative research and CPAR. Finally, this chapter concluded with a discussion on the ethics connected to this study and how specifically issues of power imbalances were identified and addressed.

In order to follow this model of CPAR we, as a research group, met on several occasions to have an open dialogue of our experiences with education and specifically with the challenges related to teaching and assessing 21st Century skills. This type of collaboration provided an opportunity to look at our *sayings*, *doings* and *relatings* and created an authenticity that will be expanded on in the findings and discussion sections that led the research group members to feel empowered by the process. Major questions remain as to whether this empowerment will remain after the research is completed or if there is an element to continuing research (added meaning) that is necessary for this authenticity. Included in the findings and discussion is a longitudinal reflection on this researcher's return to the school, post research. This provided an opportunity to answer some of the questions related to sustainability and empowerment.

PART 2: FINDINGS AND DISCUSSION OF FINDINGS

The problems addressed through this research focused on how to record the development and assessment of 21st Century skills, or life-skills, and the pedagogical implications of the shift in education that this entails.

The question that sought to address the gap in the research was:

How can professional development of teachers be framed to connect to the practical experiences of teaching and theories underpinning progressive education to better understand the difficulties of articulating 21st Century skills to the school community in a society heavily influenced by neo-liberalism?

In these next two chapters I will wrestle with the answers given, relating to what this research meant to the participants, the school, and what it can mean for PLD for educators. What follows is the identification and discussion of the relationship of Product, Process and Power.

CHAPTER 4: FINDINGS THE IDENTIFICATION OF PRODUCT, PROCESS AND POWER

Through the process of open and axial coding I identified hundreds of codes that group or identify the topics of discussion and attempted to capture the nuances of what was not said or how things were said. The three central themes of Product, Process and Power emerged after several attempts to organize the codes into categories or some kind of organizational structure to assist in my understanding of the data in front of me. The challenge was how to see the connections and relationships because they are not simply separate topics or grouping of similar ideas. Product relates to the outcomes of the study; the assessment tools, the professional learning and development plan, the changes in language, and a shift in the culture of the practitioner researchers. Process is closely connected to the CPAR model, or spirals of reflection and action, the ways in which the research group worked together to identify and implement change, the organizational structures that facilitated the process and the open discussions and dialogue that promoted critical reflection. Power is more complex and connects to both Product and Process. Power in this context relates to personal, interpersonal and also structural elements. It is the context within which all of the research occurred and had a continual influence on what we did, how we did it and what happened as a result. The later discussion chapter will delve into more detail about the implications of the Power dynamics and interplay. Here I will highlight where Product, Process and Power rose to the surface to make themselves seen, where they were specifically identified by the members of the research group in the interviews, and where they were identified during the data analysis through CGT. The discovery of these aspects in the interview process is one of the most crucial moments of the research and highlights the necessity of intentional investigation and reflection on the process itself to identify its strengths, and challenges.

In looking at the process and mapping out the findings it felt important to articulate how the research group made progress and functioned in order to highlight some of the specific steps later in the discussion. The

main threads of Product, Process and Power are woven into the fabric of the transcripts of the focus group meetings but were most clearly identifiable in the semi-structured interviews. It was in the coding of these transcripts that the threads were made most clear. It was challenging to decide on a manner in which to present the findings, it felt most digestible and clean to keep separate the threads that this dissertation identifies. It may feel like a backwards journey, but the products are the most clearly identifiable things created by the research group. By starting with the products this presentation of the findings begins with the concrete and tangible and then works backwards through the journey in an attempt to explain how the research group navigated this study. These findings present the data that came from the transcriptions and audio recordings of the focus group meetings, the semi-structured interviews and some personal journal entries during the course of the study. The findings are presented in detail in the next three sections and include the distinct Ps of Products, Process, and Power that were the main findings of the research.

4.1 PRODUCTS

What follows is a description of the tangible and intangible products of the research and the process of creation of the products. The first product the research group members explored was the school's use of narrative assessment, which is what the school uses as opposed to traditional grades and report cards. The research group liked the school's use of narrative assessment, although they found it lacked consistency in implementation. The outcome of this research also revealed a need for a structured program of PLD which the action research cycle provided. There was a distinct positive shift in the culture of the school as a result of the study, this is viewed here as a product of the research. This shift was assisted by attaining a shared language and understanding of progressive education and its centrality to the school and its teaching methodology. This presentation of findings is organized into the tangible and intangible products of the study.

Tangible products

In this section I will discuss the specific products of the research process, and how they evolved beginning with the tangible. The PLD plan was developed during the in-service session and contained a framework of topics based on the school calendar for the coming year (this can be found in Appendix C). The NCR structure was developed throughout the research process and completed during the in-service session along with the improvements to the PBL frameworks. The discussion of Product is broken into three questions which are the same questions that we as a research group used to frame our discussions about improving teaching and learning strategies; what do we do well, what do we struggle with and what do we want to do differently?

What do we do well?

The three elements here that the group identified as things the school did well were;

1. the use of **authentic assessment**,
2. a consistent **focus on progressive education**, and
3. **teamwork** demonstrated by the current staff.

Authentic Assessment

The research group members agreed that their use of the NCRs, portfolios and authentic assessment strategies addressed the school's vision of meeting students where they are, and setting goals and objectives based on the individual student and their family.

Sandy: I don't feel we need to sell people on the narrative conference, like I think it sells itself for them...its really valuable ...I think for us, as an institution or a school community

This statement represents the sense from the group that the use of narrative reports was a strength that could be improved on to articulate the school program. The research group concluded that use of authentic assessments and portfolios to document student learning reflects the social constructivist underpinnings of the school and supports teachers' efforts to document the complexities and nuances of student-centred learning. The data suggests that this alignment is key in the engagement of the current teaching staff.

Focus on progressive education

As a group the research members felt the focus on the whole child and their place in the world has always been a strength of the school. The data revealed that the research group thought the school was teaching these 21st century skills, but that there was a need for improving the way the school measured and assessed these skills and a need to recognize the consequences of these differences.

Peter: basically...so it's really not about revamping any of this, it's about how do we assess this, because we're doing this...it's how do we assess what we are doing...it's really about assessment, more than anything

The value of the life-skills and character education has been consistently valued by the administration, faculty, and families throughout the school's history, but this is not without conflict or turmoil. Participants in this research noted that this is part of what distinguishes the school from more traditional educational options and what can at times cause problems.

Josh: I think it would be nice to say, we just don't compete with the public school...I don't really care what they are doing

Laura: I have people who say oh ...I'll send them to Kindergarten with you, but then we're going to public school ...or I know they're going to do that and I...I know school doesn't like me saying it, but I am like ...if you know you're doing that, I want you to start them in Kindergarten there [at the public school], because they have a curriculum track, that is not ours, we have a curriculum and we have a track, it is not that one and I'm just very clear about it because I don't want people thinking oh they'll just go right into a seamless other curriculum track, because it's probably not going to be correct

What Laura is highlighting is the challenge of having a curriculum track or philosophy that is very different from the public school, and how it can create problems for families who wish to migrate between the two. This was something the group mentioned often in the meetings, the pressure from families coming or going between a more traditional program and our progressive program. This finding from the research indicates that there is a need for clarity from the school, 'this is what we do', that can help to mitigate problems that arise when families are not really onboard with progressive education.

Teamwork

At the time of the research, the research group expressed the view that they felt like a team who worked well together and shared similar goals. Several references were made to times in the recent past when this was not the case and there was discussion around the importance of maintaining consistency of the teaching staff. It was also noted that the structure of the CPAR cycles supported the research participants in their classroom practice and a desire was expressed to ensure this could continue beyond the research.

Peter: ... you talk about the staff and everybody keeps talkin...I don't know what it was like before ...but everybody keeps talking about ...what a great staff it is...we all seem to be of like mind ...in this ...so from this point forward let's not let anybody else on this staff that doesn't go along with this thought [laughter] I mean what's the problem here?

I was happy to note that there was a light-hearted atmosphere in the conversation at this point in the meeting that represented the feelings of mutual respect and an alignment of purpose. I noted in my reflective journal that "the teachers came up with a bunch of ideas and it was a really fun meeting, it was enjoyable to be together, we all seem to be on the same page" (personal journal, 28th March 2018). This research group functioned well as a team, supporting one another, listening closely and helping to sort through ideas and problems. In summary there was cohesion of teaching theory amongst the research participants, and a demonstration of their improved *relatings*. They affirmed the alignment of the school's program with its curriculum as central to the continued growth of the school, an alignment between the school's *sayings* and *doings*. There was a recognition that what this school provides is very different to other schools in the area, and the school ought to 'own' this difference. There was also an awareness that the cohesion in vision and understanding of the program lead to mutual support and teamwork among the research group members.

What do we struggle with?

A challenge of moving away from neo-liberal models of teaching and learning is the deliberate absence of step by step procedures for teachers to follow. As noted by Sandy, new teachers to Open Horizons

occasionally state, “This is all great, but what am I actually expected to do?” This struggle to articulate a description without prescription was articulated clearly in the focus group meetings and the individual interviews. Although the school has over forty years of experience, it is influenced by the current educational debates encompassing teaching and learning, and families and faculty often feel pressured to answer the societal questions related to education and assessment. The recent trend in the US toward more standardisation has had an effect on a school that, in principle, rejects standardisation. As a consequence of changes made in response to parent or community pressure Sandy pointed out,

... that we are not consistently looking at the same things from one group, from one teacher group to the next.

In a discussion about curriculum design the group identified as a struggle the lack of commitment to our alternative program by the school, that at times we seem to try to straddle the fence of a traditional program and progressive education.

Sandy: We totally undermine our message we sabotage ourselves ...by not just going ‘full monty’ committing to it, I mean seriously ...lets you know

Me: So, we need to do it

Peter: yes, do it, or *don’t*, it’s one of those

Sandy: Let’s be ducks. We quack like it ...we walk like it...we talk like it...let’s do it ...why are we trying to pretend like

Peter: Yeah...put up or shut up...kind of thing...trying to find something other than \$%&! or...get off the pot...kind of thing...but that’s what I’m thinking ...you’ve got to either commit or don’t ...you know...go for it

This conversation highlights the groups common commitment to progressive education, and they were able to share their common *sayings* and *doings*. It also serves as a signal of their recognition of the importance of the program and its difference from more traditional programs. In addition, this conversation demonstrated the power of CPAR to improve upon or influence the *relatings* with a practitioner group. This

led the research group to several questions about curriculum. If teachers are not given a step by step manual, what framework will the school provide the teachers to ensure programmatic consistency?

Sandy: It's for us to be able to come up with something, some consistent framework so that our 1st grade teacher is looking at the same things that our high school teacher is going to look at, years down the road...so that there's actual legitimate record of this child's development on these specific things.

This also necessitates infrastructure from the administration to support teachers in their continued learning and development. These questions articulate the struggle to maintain consistency in a program that espouses emergent learning, but also leads to the complexity of how does the school support the flexibility of emergent curriculum for the teachers while also communicating to families what will happen in the classroom? Sandy also brings up an interesting point about the 'legitimate record' for the student. This comment reflects the neo-liberal leanings of current school assessment discussions, and the push toward standard results. It is also a nod toward power. These struggles and challenges provided fodder for rich debate and led the research group to identify several changes to effective practice and improvements to documentation.

What do we want to do differently?

There were three main changes that the research group identified.

- 1) A formal plan for professional learning and development,
- 2) An improved Narrative Conference Report, and
- 3) A framework for designing and assessing class projects.

A formal plan for Professional Learning and Development

To aid in the consistency of the school's program through the training of new teachers, and the support of continuing teachers, a framework for Professional Learning and Development (PLD) was identified as missing. In order to have consistent language, the teachers needed a clear picture of what was happening

from one class to another. In the focus group meetings, the members reflected on the benefit of having another teacher observe their classes and how this could be instituted formally into PLD.

Josh: It's like pie in the sky but it would be so cool if like umm the visiting teachers were to write it [the observation of the 5Cs]...because they're the ones observing ...you know ...as a teacher it's hard for you to like ...be like oh I see ...I'm seeing collaboration right now because you're ...you're getting everybody together and you're...orchestrating it

Josh articulates here how challenging it is to reflect on your own practice and how an outsider watching your lesson may see what he as a teacher was unable to observe. Through the discussions of the observations of each other, the research group members expressed the reinforcement at seeing where their own students might go in the coming years and the validation that their curriculum and lessons were built firmly on previous years activities.

Laura: Yes.... and I liked observing especially it made me see OK things are kinda continuing from mine and through...and that was good to see

Peter: And yeah, when I went down to her [Laura], it was like yeah, this is a good base and it is like I'm kind of picking up right where she left off...so that's helpful ...you knowmy kids come from you ...so

Laura teaches the younger students on a campus that is physically disconnected from the main campus, and this observation schedule created the practitioners to visit classrooms that they normally wouldn't. The design of the study provided the research group members with the time and opportunity to intentionally observe each other's practice and reflect together on those observations. This structure does not exist in the current teaching schedule, and one outcome of the research was an attempt to build observation and discussion into the school calendar. An adjustment to the schedule would address the structural issue of when and where the PLD would occur. The research group specifically identified the conversational nature of the dialogue as crucial to PLD and did not want paperwork that would formalise the discussion into check boxes or evaluations of each other.

Sandy: I like that we're having this continuous dialogue about it because I like that ...I'm like oh I'm doing that too...we should figure out a way to like...put it together...that's not going to

happen through a form ...the only ...accountability and requirement is to go observe and then talk about our observations...we don't have forms to fill out and paperwork to submit

There was considerable pushback from the group against a standard or formal procedure for the observations. This pushback against formalisation was balanced against a need to document the ideas and feedback given to each other. This also reflects the nature of the teaching practice of progressive education, that it is responsive to situations, not overly prescribed. The research group members resisted the idea of power over their practice, although they welcomed each other into their classrooms their comments reflected a suspicion of organizational power over their practice. The findings here represent the balancing act between support and control that will be elaborated on in the discussion.

The process of CPAR laid out a framework that utilized democratic means of problem solving and professional development. An analysis of the data from this research revealed that the cyclical and reflective process of CPAR was a tool that could be used beyond the research as a model for PLD at this particular school. The implementation of the PLD plan was the topic of some concern for several of the research group members during the individual interviews.

An improved Narrative Conference Report

In looking at the design and format of the current Narrative Conference Report (NCR), the research group decided to dedicate a portion of the summer in-service to updating the structure and language of the reports to explicitly include the 5Cs and the particular projects associated with each report.

Josh: what I would like to see next is maybe as much as we can a collaborative conference report that we all at least in some shape can utilise and that it's something that each classroom can ...and one that focuses on our 4-5 Cs...or 4.7 Cs

Josh is jokingly referring to the oscillation of the research group members on the number of Cs that should be included in the conference reports. Finally, in the last focus group meeting it was decided that the NCR

would be used to frame language around the 5Cs of communication, collaboration, critical thinking, creativity and character. The research group members felt that project descriptions were necessary to provide the context for the 5Cs. Peter in the next selection describes how PBL can be a useful tool to map out the 5Cs involved in a project.

Peter: ...but on the back sheet there's that part where they write down what happened that day when they actually went out and flew their kites ...and then there's another section what are we gonna do to fix that next time... And we can have photos and we can have that whole packet with ...from the beginning they have a brainstorming where they ...what materials they want ...then they're engineering how they're going to build it ...and then the next stage then they start saying they start drawing out designs ...they start doing ...so there's a whole step...there's like 6 pages, 6 steps to get to the actual flying and then you have the last the assessment ...and it's their self-assessment

Here he details a project as an example of how to document the learning and reflection that also includes younger students on the self-assessment process. This reflection ties together the NCR with the description of projects or PBL. It highlights the need for a documentation trail that teachers need in constructing the NCR at the end of each reporting period. These findings identify structural changes identified by the research group that would assist teachers in a more complete and potentially 'legitimate' record of student development. Analysis of the data revealed that the research group believed that the changes in the NCR would support the teachers, articulate the program of the school and value the core principles of progressive education; meeting children where they are.

A framework for designing and assessing PBL

The focus group discussion of class projects revealed that there was a lack of consistency in how PBL was designed and implemented. A problem the group identified was that the organic and emergent nature of the school sometimes led to half-baked projects or having to abandon projects mid-way through because they were not working. Here one of the practitioners describes an instance when things do not go as planned in a class.

Kate: And being open to looking like you might be a little confused [laughter] or like something failed and your kids can tell and just being ok with that ...like ok...maybe you guys should suggest what we do now ...

Kate is articulating the sometimes-frustrating nature of emergent learning, with its additional necessity that teachers be able and willing to abandon projects that do not engage students, in the moment. Some projects are started and never finished, while other projects lacked the important conclusive step of reflection. The group discussed in some detail that the nature of assessing the 5Cs was more complex and messier than traditional academic skills. Laura pointed out that when traditional schools just “go back to the traditional values...they have missed the mark again”. Or as Josh put it, “they are doubling down on something that is not effective”. What both are describing is the reality that you cannot create a lecture about the 5Cs and expect students to now be able to demonstrate them through a pen and paper test. The point the group got to was that if you are going to look for more complex skills such as communication and collaboration you must build into your lesson plans and daily schedules the time and an assessment strategy for these skills.

Laura: We have to build this into the schedule because a lot our things that we have studied they talk about how reflection is an important part of the lesson, of the camping, and all of that and often times that’s what we skip and don’t make the time for it

It was also noted that often the NCRs often only focus on the previous few weeks leading up to the report. The group identified the need for some kind of tool to assist in capturing their observations that did not burden the teachers with too much additional paperwork.

Sandy: How do we do a quick ...a quick and dirty document ...document every week ...because I feel like, you know, at the end of the semester or like when it comes conference time ...we sitting down there and reflecting it...and you’re really probably going off of just what you remember from the past two or three weeks...as opposed to the full nine weeks that you’ve had...but that...I know that that probably requires sitting down every week and writing something

Sandy frames the challenge of remembering a semesters worth of work without creating burdensome paperwork. It was noted that documentation tools could be added into PBL learning lesson designs, so the

teacher's notes and observations could be captured at the time the students were engaging in their projects.

The research group wanted to establish a framework for designing and assessing class PBL. This framework would aid in consistency and documentation, helping new teachers but also improving feedback to students and assisting the NCR. During the in-service time, the research group was able to work together to brainstorm ideas for PBL templates that could complement each other's classes and focus more clearly on the 5Cs. This process also led the research group members to identify the need to shift away from the written curriculum, which they identified as too prescriptive, to reflect a framework that met their teaching strategies and aligns with the school's social constructivist philosophy.

When asked what they would like to see come as a result of this research process there was a similarity in the vein of answers related to the product of our work:

Josh: ...that we can get clearer about assessing these kind of amorphous concepts, you know, I think we're on the right track just trying to figure it out. It's the first step, as opposed to being, like you can't you can't measure that stuff just, just, yeah just kind of like throw it out there and hope it sticks, but we're, we're interested as a team to figure it out...I'm most hopeful about is that we figure a way to assess and practice it and keep continue to refine it

Josh is wrestling with assessing concepts that don't have a clearly defined shape and noting that maybe the attempt to collaboratively examine these things will give better language to discuss them, and through working on it together as a team (rather than individually) the research group will come to improved solutions.

Laura: A more sustainable model of looking at ummm students and education...right...yeah... Yeah...umm yes...throughout and it will work throughout our whole system

Laura is most interested in a model that the school can use consistently to view students that works for all the different grade levels. This addressed the concern that consistently arose in the focus group meetings and demonstrates that the practitioners were paying attention to each other's *sayings*, *doings*, and *relatings*.

Kate: I hope to see more, ok so more broadly, more recognition from the community and from other institutions...just being able to see what we've been doing, understand it better, I'd like to see funding come to the school so that's tied in with the recognition right, they then recognize, that what we're doing is legitimate because here's that framework that we provided, and then more locally, I'd like to see the community's response to it and a stronger desire to send kids to the school

Kate hoped for the work at this particular school to be recognized in the local community, for at times the school was viewed as fun but not necessarily very academic. This also would be assisted by a consistent language that the group often articulated a desire for. If the language was more consistent then it would be easier to share the school's programs with the larger community. It is interesting to note that Kate also used the word legitimate, and this raises questions in response to the neo-liberal influence on education; in whose eyes would the school be legitimate?

Peter: I hope that we have a solid curriculum ... from it I hope we have some sort of document or documentation ...that we can show to the world you know here's what we do.

For Peter, he expressed a desire for the curriculum to reflect the actual program and that could be used as a document we share with other schools. This mention of a solid curriculum reflects his feelings that the current curriculum is ineffective or lacking in some manner.

There seemed a recognition that what this particular school focuses on (*doings*) is dramatically different from what other schools offer but that there is a need for clarity and language (*sayings*) to share the school's vision of education with families, the community and the larger education world. The research group members voiced their feelings that the time together (*relatings*) was productive. It was meaningful

because the group made some actionable plans that the group would have the opportunity to evaluate later.

Josh: I felt like each one brought valuable content ... and reflection but also action. I felt like you know it wasn't just a deliberation and wishful thinking. There was you know ...there were changes that were made.

For Josh the cycles of CPAR produced tangible products and were not just discussions, the work the group did together was fruitful, and it left him wanting more. This is an important element of action research, that changes in practice occur as a result of the work together.

The tangible products (*doings*) of a formal PLD plan, improvements to the NCR, and the framework for PBL work were described as positive gains by the research group members during the individual interviews that were conducted at the conclusion of the data gathering stage. The research group members consistently articulated the pleasure of working together to improve their personal practice and the improvement of the overall program of the school this leads to the more intangible gains of the products, a shift in culture (*relatings*) and an agreement on language (*sayings*).

Intangible products

In coming together to solve common challenges in their classrooms the research group gained insight into each other's backgrounds and expertise and formed bonds of support. The key tensions that emerged were between documentation and standardization. The research group members searched for a way to consistently describe the learning process that was not overly prescribed. There was an expressed concern that too much formalisation or standardisation could create a trap or cook-book style recipe teaching that would imply there were specific steps to follow, when in actuality progressive education is more dependent on organic relationships that require authentic responses. The two main intangible products that the data

revealed were a shift in the culture of the school and an agreement or alignment on language for discussing and assessing the 5Cs.

A shift in culture

Claiming a shift in the culture is more nuanced and subjective. There were shifts in our *relatings*, in who was speaking when they spoke and for how long, in the transcripts of the focus group meetings. As the research continued the group became chattier and their comments more specific. This process is described in detail in the description of the theme of Process that was identified through the analysis of the data. This shift could be attributed to getting to know each other better, and although the group already knew each other and had worked together for the past six months, this process helped to establish an improved culture and a change in *sayings*, *doings* and *relatings*. At the conclusion of the research all the participants noted the positive impact the research had on their practice and the groups collaboration. These were some of the responses to the question about their feelings about the research process:

Sandy: I am loving it, and I am oh super excited for the future and it's making me feel empowered ...yeah, empowered, and emboldened.

Peter: I think it's been good to give us direction I feel like we have kind of like a goal of what we want to be and so it's given us something I guess the direction to get us there...its good...like I told you it's one of the best professional development or just in-service that I've ever spent its most productive maybe that's because we did have something in mind.

Kate: so the first half of the year I was kind of getting my bearings in terms of what my position really was ...and then the second half coinciding with being more comfortable just in my own performance and then you coming in with all these ideas and implements ...really it's just a lot of clarity and new ideas an inspiration

Laura: I actually thought that it really went well as far as us collaborating and throwing a lot of ideas. It seemed for a while we were kind of scattered just trying to figure out how are we going to do this? And so, by doing some of the exercises and talking and working together we came kinda to what my first idea of how we would have to do it

This excitement about what we had done together contributed to feelings of empowerment and engagement in something larger than themselves and gave value to what we were doing. The shift in

culture was also observed through an increase in conversations outside of the focus group meetings related to the school and its purpose. Another indicator is the lack of turnover in staff. The previous ten years had seen an almost revolving door of teachers and administrators. In that time there had been six different heads of school and at least three times an almost complete replacement of teaching staff. Although the level of pay had not significantly increased this particular group of teachers has remained consistent for the past three years. As Peter mentioned earlier:

I don't know what it was like before ...but everybody keeps talking about ...what a great staff it is [now]...we all seem to be of like mind ...so from this point forward let's not let anybody else on this staff that doesn't go along with this thought [laughter] I mean what's the problem

Peter jokingly reflects here on the importance of a team who shares the same philosophy and goals, he also articulates a shared belief that the current staff is valued. Several years of turnover had resulted in a vacuum of culture, and the findings show that a clear focus on our *sayings*, *doings* and *relatings* filled some of that space. Since this study was completed the school has retained all of the core teachers, and this data reveals the cycles of CPAR produced a shift in the culture of the school and contributed to retention of qualified and like-minded staff.

A language alignment

Through a detailed look at the transcripts of the focus group meetings there was an observable growing agreement and refinement on language and an attempt to articulate the school philosophy and mission, and how that translated to actual teaching in the classroom. The group sort to find common language to talk about the teaching and assessing of these sometimes amorphous 21st century skills, or 5Cs.

Sandy: Are you talking communication, creativity, collaboration and citizenship? [yep]...So before we give that feedback, I would think that we probably would have to come with a mutually understood and agreed upon definition for each one of these three because what creativity means to some may be completely different to others...

Sandy believes that not all the Cs have a shared understanding and that creativity provides unique challenges in assessment. This is because there are many definitions or interpretations of the 5Cs and she is expressing the need for the group to share some common terminology, so we, as a group, are teaching and assessing the same things. The conversation turned to the challenge of documenting and sharing with parents and students the more qualitative nature of assessment of 21st Century skills.

Me: Right...we are framing the language...yeah...what we're doing is what the addressing argument in research ... between quantitative and qualitative research... people feel better about numbers and percentages but the way we live life the way we make changes is all about qualitative assessment, which is scary because there is not a number associated with it ...it's too wishy washy ...it's too ummm dependant on people's feelings

Laura: It's the Open Horizon's Way

This last statement was made in jest by Laura but is a common turn of phrase at the school to describe the often difficult to articulate culture or description of the program, 'the open horizons way'. The discussion again circled back around to the difficulty in naming or explaining concepts that escaped traditional measures or come down to the craft of teaching rather than a technique or step by step process.

Peter: But then there's also that little piece where it's hard for us to put it in words... because sometimes I can't tell you how to do something ...it...I just do it naturally ...it comes from doing it for 21 years and umm modifying adjusting ...thousands and thousands of times and going oh, that didn't work and this ...oh and knowing kids, and knowing what a six year old is going to do and think sort of ...you know ...and go ok...so you can prevent certain things ...they're not going to be able to do that because ...or this is what's going to happen if I hand it to them this way... and those are just things you pick up. So, I don't know how to... put that or anything except as far as ...teaching stuff...it just happens.

What Peter describes here was part of a larger discussion about the skill (or craft) of teaching and if that could be taught, or if it was an innate skill that some teachers possess. He also gets at the challenge of articulating the amorphous or emergent nature of learning. This dilemma was common to the discussion of the nature of assessment of 21st Century skills, ones that often need to be demonstrated in action rather than reproduced on a test.

This language struggle surfaced in many iterations, as the group wrestled with the complexity of measuring or assessing student growth and development in the 5Cs. This next exchange demonstrated the research group members grappling with language to come to a shared understanding of the schools established life-skills in relation to the 5Cs.

Adam: Well looking at our list of our own values here, life-skills. I was just wondered if some more Cs should be added, you know you added citizenship, which I think is a good thing to add, but what about caring? Caring is something you can observe, whether a kid is...and it really plays in and locks in to all these other things

Me: Right, right does it and does it come in under umm communication and collaboration or is it ...do we need another standalone ...that's the question...yeah

Adam: Well caring about the quality of their work, for example, meeting the goals of the assignment, caring about each other in the collaborative classroom umm and maybe that's not...I'm just trying to really clarify for myself what the Cs are in relation to what the traditional life skills that we emphasis are...

Sandy: I think what you're saying though has to do with integrity

Peter: Or pride, if you're talking about their caring about their work

Sandy: But to act according to what's right and wrong, you're here at school, you're expected to have the integrity to do a good job and do your best

Josh: I think it's useful to figure out if that's if that's our framework because the word citizenship to me I feel like a better word would be like community...[agreement sounds from the group] community involvement

This conversation shows the group investigating their *sayings*, *doings* and *relatings* together. This public sphere of discussion for the research group, opened up dialogue and allowed the group to play with concepts until they reached a more solid group understanding of complex and sometimes amorphous concepts. It also reveals the finding that the process of CPAR opened up the space for the research group to come to a language agreement, and a way to talk about progressive education together.

Adam tells a story to the group of trying to explain to a visiting family about the school and their inability to understand or let go of more transitional beliefs. "...and they just loved what we were doing...but they said but what are your test scores like?". It would be nice to have a better grasp on some language to use in these particular situations. Peter agreed and added "...if we've got something profound to say to them about that ...maybe that could help them". Both Adam and Peter are articulating a desire for more explicit or better language to communicate progressive education practices. The challenge may be that families are seeking neo-liberal answers to progressive education questions, the two may not be compatible. These selections reveal the refining and agreement of the research group's *sayings*. Through the CPAR cycles of reflection and action the group was able to identify the things they were all doing and the give a common language to talk to each other and families.

Below I have included the axial coding I created related to the theme of Product. There were the skills themselves that were our focus under the heading of 21st Century skills, the means of assessment we discussed, the ways and uses of documentation, and influences of power in relation to what we were creating. The table was created while sorting through the coded transcripts of the focus group meetings and interviews. These charts help to see a visual representation of what the research group continued to talk about. It also was a visual organization tool, that demonstrated the topics that held value to the group. Certain words or phrases were often repeated and formulating the questions at the top of the columns help me, the doctoral student, sort out what questions the group was addressing. The categories of 21st Century skills, assessment, and documentation have similar qualities and sorting them into categories helped to understand the nuances. There is almost a scale or continuum when the questions created are considered. What are we doing, how well is it working, how do we communicate it to others and why does it matter? The questions move from the more concrete toward the more abstract. It was not until writing this description that became evident.

	21st Century Skills <i>What we are trying to address?</i>	Assessment <i>How will we know if it works?</i>	Documentation <i>How can we communicate to others?</i>	Power <i>Why does it matter?</i>
Product	5Cs	Negatives/Challenges	Curriculum	Productive
	Communication	Checklists	Language	Responsive
	Collaboration	Scales	Structure	Important
	Creativity	Mistakes	Narrative	Continuity
	Critical Thinking	Credits	Implementation	Consistency
	Character	Positives/goals	Feedback	Feedback
	Observations	Peer	PLD	
	PBL	Self	Conferences	
	Life-skills	Teacher		
		Feedback		

Figure 18: Coding for product

SUMMARY

The main products identified in the findings were in two main categories the tangible and the intangible.

The tangible products were the NCRs, a proposed PLD plan, and improvements to some curriculum documents. These products were investigated with the aid of three guiding questions; what do we do well?, what do we struggle with?, and what do we want to do differently? The research group agreed that the school used authentic assessment well, there was a consistent focus on progressive education and that the current staff demonstrated teamwork. The main struggle identified by the group was the challenge of living in a neo-liberal society while operating a school under a progressive education model, these things are often at odds as they value different ends to education. These neo-liberal leanings often require more prescriptive forms of teaching and learning and a business model of accountability for the products of education. As a result, the group identified three main things they intended to do differently; a formal plan for PLD, improved language in the NCRs, and a consistent framework for designing and assessing class projects. The intangible products of this study were a shift the culture of the school and an alignment on

language for discussing and assessing the 5Cs. I will now turn to an analysis of the attributes of the identified theme of Process in the next section.

4.2 PROCESS

According to the data the process itself clearly built rapport between the research group participants and engendered mostly positive feelings about the school, each other, and the research itself. What follows is a detailed look into the process at the heart of the research that occurred during the time of the focus groups meetings and the research group members observations of each other's practice. The elements of dialogue, structure and authenticity are interwoven throughout this time.

Focus Group Meetings

In the focus group meetings, the research group members met for three sessions. In these sessions the group identified the topics of the research, reflected on the process, and set goals for changes in practice or outcomes of the research. Each focus group meeting reflected its own tone, and three topics from each meeting will be discussed in this section. In focus group meeting one, the three areas elaborated on are; getting on the same page, involving students in their assessments, and querying the role of assessments. In focus group meeting two, the three areas are; querying the role of (assessments/curriculum/teacher), observing each other's practice, and documenting the process. In focus group meeting three, the three areas are; observing each other's practice (in relation to power), documenting the process, and designing a framework.

This process of working together mainly took place during the focus group meetings and the observations the research group members participated in of each other's teaching. Included below is the coding chart using gerunds, as suggested by Charmaz (2014), that helped to analyse the flow of conversation and identify the key topics addressed in each of the focus group meetings. The highlighted gerund phrases are discussed in detail in the following sections and they are arranged in order of frequency from the transcripts.

FOCUS GROUP	CODES	OCCURENCE
ONE	Getting on the same page	10
	Involving students in their assessments	9
	Querying the role of assessments	6
	Communicating what we do [to new teachers (and others)]	2
	Improving the narrative conference report	2
	Designing a framework	2
	Gaining consistency and some standardization	1
TWO	Querying the role of (assessments/curriculum/teacher)	10
	Documenting the process	6
	Observing each other's practice	5
	Getting on the same page	2
	Creating something that is special	2
	Gaining consistency and some standardization	2
	Involving students in their assessments	2
	Connecting learning to society/the student	2
	Communicating what we do	1
	Engaging in the process	1
	Owning what we do	1
	Building community	1
THREE	Observing each other's practice	14
	Designing a framework	5
	Documenting the process	5
	Getting on the same page	3
	Engaging in the process	2
	Involving students in their assessments	1

Figure 19: Gerund coding

Focus Group One

Included in this section is a breakdown of the main findings in each of the focus group meetings that relate to the theme of Process. In the first meeting the main discussion (*sayings*) revolved around the life-skills and the challenges of assessment related to progressive education (*doings*). The three areas that were central to the conversation that will be elaborated on are:

- Getting on the same page
- Involving students in their assessments
- Querying the role of assessments

Getting on the same page

The first comments after my ten minutes of introduction revealed that I had jumped into the planning stage of centring the 21st Century skills on the 5Cs of communication, collaboration, creativity, critical thinking and citizenship without allowing the necessary time for the research group to agree on that understanding together, which is an essential element of participatory research (Smith, Bratini, Chambers, Jensen, & Romero, 2010). Which includes citizenship as the 5th skill not character. A change that was made later in the research.

Adam: Well looking at our list of our own values here, life-skills. I just ...wondered if some more Cs should be added, you know you added citizenship, which I think is a good thing to add, but what about caring?

The research group started coming up with a list of other life-skills that all began with the letter 'C'. Upon reflection as a researcher I saw that my time spent researching and reading had brought me to focus on these skills as central to 21st Century education, but it was naïve to think that a ten-minute introduction would bring the research group to the same point. In listening to the transcript, I could hear the frustration and then the realization in my voice as I tried to back myself up and allow for the research group to decide what skills were actually important to the school.

Me: I don't want to get too far away from the Cs that are up here ...if ...unless we really want to and can defend it ...because this is the language that's being used in educational research right now and if our goal is to say 'Hey we've been doing this for 44 years ...'

This authentic moment made me wonder whether my intentions for this research would be met if the group was needing to spend so much time on the basics, and what, if anything, I could do about it. This is

also a potential challenge to the participatory and democratic nature of the study. However, it did not take long for the teachers to arrive at almost the place from which I was starting.

Peter: We don't want to reinvent the wheel. What we want to do is show how we assess... the wheel, basically...so it's really not about revamping any of this, it's about how do we assess this, 'cause we're doing this... It's how do we assess what we are doing...

Here Peter is helping to frame the language and aims, *sayings* and *doings*, of our work together. It took the first twenty minutes of the meeting to get to the place where almost everyone had spoken up. Once we had established the need for what we were about to do with the research we were able to start dissecting the problem.

A point that several members of the research group made in this beginning discussion was that the school has at times struggled to articulate what exactly it does that is different from other schools, and more importantly why this difference is important. On occasions the school has been called "the miracle in the woods". When asked about the school some families will say, 'it just feels good' or 'my child likes to be at school for the first time'. Although this may be enough for some families the sentiment does not communicate clearly the philosophy or theory behind the magic. This can also become an issue when hiring new teachers or bringing in new families. The school needs to use consistent language in order to understand and communicate its programs.

Sandy: ...what has happened throughout the years is that we are not consistently looking at the same things from one group, from one teacher group to the next, I guess...so if you look at one child who started school here and you look at their conference reports from 1st grade to 12th grade there will be different focuses based on what that teacher's priorities were...not necessarily what ...not that consistency... What we do here has been, always really confusing to people and even to ourselves... 'cause we see it and we know it when we see it...but it's like defining irony...you know what it is when you see it ...but to try to give a definition not everybody understands it...OK...so it's a challenge for us, and it always, always has been.

Sandy clear states the often-overlooked structural topic, that is making sure we are all starting from the same point, and all understand where we are going. This first half of the meeting reflected the need to make sure we all understood each other and could then come to an agreement on the direction we would head together. The amorphous definition of the school's philosophy is closely linked to various challenges. The school often struggles to give examples of hearts-engaged learning, and it is hard to defend a life-long love of learning when talking about elementary students, you won't know for a long time if that holds true. For example, the school has always used the NCR as a tool for communicating student growth to families. The report is written by the teacher before face to face meetings between the teacher, student and parent. These reports have always been non-graded for the primary students, but the school has fluctuated on assigning a letter grade to the middle and high school students' academic subjects. This fluctuation is a possible reflection of impact a small population of students and parents can have on the tone direction the school. Each cohort, or class, has a particular culture, which can lead to different agendas or expectations.

Throughout the focus group meetings there was a clear and identifiable concentration on articulating (dialogue) the life-skills, or 21st Century skills, that are central to the school's mission. There was consistency in agreement as to their importance and a recognition that, as a staff, this had sometimes been neglected. The group expressed the sentiment that although they know that they value the ways in which the school is different from a traditional school setting, they do not seem to know how to talk about it, nor how to describe it to others.

Me: Which is scary because there is not a number associated with it ...it's too wishy washy
...it's too ummm dependent on people's feelings it's too ...uhhh... mumble ... it's this, right?
It's ...uhhh

Laura: It's the Open Horizons way.

This point that I am making in the discussion reveals my own distrust of the power of numbers and grades, balanced against this is the desire to accurately describe and document the learning process in a consistent

way. This is the very tension that the group continued to return to, that if the school becomes too structured and explicit it will lose the core organic nature of responding to students where they are. The discussion returned in each meeting to the modes of assessment and documentation. How can teachers assess growth in skills? Will separating the skills from integrated projects or complex situations lead to less meaningful assessments?

Involving students in their assessments

Repeatedly the need for a consistent language emerged along with the need to develop the metacognitive ability of students to self-assess. As the meeting progressed it became evident that the research group agreed with the value of the NCR but felt that its structure could be improved. This reflected the research group's agreed upon belief that learning is not a destination, it's a process, and grades give students a false sense of arrival. Students think, I am finished, because I got this A.

Sandy: What I make to Vince's point. That's where we get those fragile thoroughbreds because they are treating it as a destination ...to get their A and their done...and they're not pushing themselves to develop them further.

This idea of the fragile thoroughbred has been used to refer to students who are good at school (Randolph, n.d.). They have been successful at figuring out the system of school and rarely run into stumbling blocks. Students who manage to get all 'A's in school without much effort may not develop the persistence and resilience to respond to an obstacle in their path. The group conversation repeatedly returned to capturing the students' voice in the NCR and building on their self-assessment abilities, in order to develop their thinking skills about their own learning, or metacognition.

Peter: So somewhere in there if we can get that piece in there, where you're asking, '*what are you learning?*' (Italics to emphasize change in tone)

This example highlights the tension between students assessing, or reflecting on, their own work while their teachers are reporting on student progress. There was a disagreement between the group members

about the level at which students would be able to self-assess but they eventually agreed that all students do self-assess, although they do it in different ways.

Sandy: So I have a couple of points. One, I think that with self-assessment we should be starting that around 10[age] ...but I don't think under 10, like in like Peter's class...I don't know

A little later...

Elaine: I want to go back to the lower grades... they DO assess themselves, you know. I remember having 1st through 2nd grade kids that because of what their parents are telling them, so afraid to do, you know, to do a spelling word because they might get it wrong. Which means they are assessing themselves but not knowing how to do it in a positive constructive way, so we want to start at this level to give them the tools to be productive about it.

The research group members of the lower grades were at first hesitant to say that younger students could perform self-assessment tasks, but throughout the discussion (dialogue) the issue was the language and developmentally appropriate ways to talk about one's own learning as a younger child. Some of the stories the group shared revealed the deep and meaningful ways students notice what is happening (or not happening) in a classroom. Where the group became mired was in the language and role of measurement, assessment, and standardization.

Querying the role of assessments

There was some debate around the value of quantitative verses qualitative assessment with a few research group members expressing concern that without grades, percentages, or scores it may be difficult to demonstrate growth.

Josh: Well, like... I'm thinking two things. Like one is you know first through third grade creativity here's 15 items that ...you know we...umm... that we're looking for in every student and Clare has hit nine of the 12 by the time she graduates third grade and maybe those are the same items that are 4th through 6th and so on and so on ...but are we going to say like she's 74% creative?

This point highlights the challenge for scoring or marking qualitative values against a scale. The discussion evolved into changing from grades to some other form of scale, be it colour, descriptor or

a mere listing of the life-skills. This particular conversation resurfaced in many iterations, speaking to its centrality in the issue we as a group grappled with.

Adam: You know you could almost look at these Cs as a checklist.

And then later in the meeting...

Josh: It would be like cool if the report card was like a life-skills index, you know ...like here's your report card, it's a life-skills index, but again, you know... quantifying ...collaboration...is tricky...I mean it's possible ...but then what is there what is...

Me: What is the purpose of quantifying it? Rather than qualifying it?

Josh: Because ...I think... in my opinion ...maybe I should put this bias out there...is that, if we're not going to have something that is a middle ground between 75% and you know, a like high five sticker, like high five, good job...so in the middle is a narrative that also has some quantifiable meat ...because otherwise I don't know what we are doing different ...

This tension between numerical scores and narrative description was never resolved. Some research group members felt that a score had "some quantifiable meat" and this difference is important to note as we continued to function as a group and move forward with this unresolved tension. In fact, this tension led to some valuable discussions that produced some changes in the way documentation occurred. The discussions could have continued, but as the facilitator of the meeting, I had to break in to end the conversation because I was concerned about time. It was clear that the research group agreed on the need for a new framework. The struggle was to define what that framework would include and how prescriptive it ought to be. This reflects back to the purpose of participatory research; a group of people working to achieve an agreed upon change (Kemmis et al., 2014).

Focus Group Two

The research group appeared eager to continue the discussion from the previous meeting and it seemed evident that they had been reflecting on the concept of documenting the process. This particular meeting happened at the time when many schools in the US were responding to the Parkland High School shooting on

February 14, 2018, which resulted in 17 deaths of staff and students. Much of the discussion in this meeting referred back to the students' response to the shootings and the consequent marches that were happening across the country. This also documents the ability of CPAR to respond to situational moments and cultural circumstances that a group of researchers may find themselves in at any particular moment in time. It felt important to highlight the context here because I struggled at the time whether or not to redirect the conversation back to the topic of creating a framework or discussing the teacher observations (authenticity). It transpired that the group discussion did lead into the struggle to capture the unplanned moments that arise during a school year and therefore contributed to the overall theme of the meeting. The three areas from this meeting that will be described here are:

- Querying the role of (assessments/curriculum/teacher)
- Observing each other's practice
- Documenting the process

Querying the role of (assessments/curriculum/teacher)

The research group played with some definitions and descriptions of the Cs. I had, over the month, talked with a few of the individual members and come up with visual sheets for all the Cs that gave a list of observable behaviours which would help the group talk about the skills with their students and write about them in the NCR (see Appendix B). The group also talked about different classroom projects and how they specifically promoted the skills and demonstrated student competencies. The research group talked about the necessity of keeping the flexibility that PBL and group work present, because all students are different.

The research group spent a while talking about the high school students' lack of engagement with the student walkouts, elsewhere in the country, as a protest against guns. The school had engaged these students in conversation about the shootings but was not inclined to make them do something that did not genuinely come from the students. Two local newspaper articles had appeared that week about the

students from the school; one, a high school project where the students had designed, built and launched their Bevins Skiffs (rowboats) on the local lake and the other a middle school project where the students made and donated walking canes to a local medical facility. These examples were used by the research group to highlight the challenge in transferring these experiences into the framework of assessment.

Laura: Oh, oh ...seeing the photographs in the paper of them taking the canes ...and being with Dr Frost, being on Lake Lallybrook in the boats that they made themselves, those said a lot, you know, to me. But to actually be able to do in a conference, I can't think other than anecdotal. [Pause] Or through photographs, or you know interviews, but just seeing those in the paper, oh my gosh, that is exactly what we were talking about ...how do we put words to this? A lot had to happen before that photograph got there, and then what happened after the photograph too.

The students launched the boats the week of the anniversary of the Columbine school shooting, a week where many school students held walkouts or in-school protests. What follows is the discussion of why our students did not opt out of school that week and the research group members reaction to the students;

Josh: I didn't feel like I should be [referring to the topic of leading them] ...and so for them it was just another day they had ...they had plans, you know they has stuff going on like Sandy was saying ..umm, so it didn't quite come up, again. We will be processing the marches and we'll be talking about it and examining it... from our point of view.

Peter: Yeah those two [referring to the public school responses] it was more political ...it felt like they were fighting some sort of politics, rather than they lost ...I felt like they had lost focus, on the whole ...march...on what it was ...and I feel like what we did, was a bit more ...constructive ...and then again...how do you put that... into our ...how to express that to people in an assessment...

Me: Right, we don't give them the same push back against their ...voice so if they had wanted to do something ... I think they know ...we would do it, we'd support. But I think the issue at this ...in some of the schools around the country was schools trying to stop students from doing stuff ...and that creates the friction...whereas our kids don't have that.

The opportunity was there for students to protest, and the students understood that this was supported by the school, however in this case the students chose not to stage a protest. In other schools, student did protest, despite the disapproval of the school leadership. Perhaps having an opponent actually empowers student protests. This raises the issue of power that will be featured in more detail in the discussion chapter

on power. The question or tension that the research group kept circling back to was 'How dynamic or prescriptive do we want our assessments and curriculum to be?'

Observing each other's practice

Almost 15 minutes into the meeting I realized we had yet to explore the topic at hand; reflections on observations. "So...back to the observations ...observing each other...when you were observing each other...in the classrooms...what was that? Expand on that experience". The research group members shared the experience of observing each other and described what they saw in relation to the Cs. These descriptions were animated, and the group appeared excited by each other's practice.

Sandy: That's one thing that I really liked about Vince. From the start is he makes you feel like *I can do this ...I can do it!* [excitement in the voice]...you know. Especially for me, who is so jaded and turned away from music, just sitting in his class listening to him I was ...[mumble] I wanted that, you know. He's very very good at that...I think part of it is that he can do these great analogies and explain. He can explain music inside and out, I mean, he's a true expert with what he's doing, with his subject matter. So, that was pretty awesome.

Here Sandy was inspired by spending time in Vince's classroom, her remarks are as if she were a student in the class. This reflects that the observations were more than technical assessments but also engaging for the observers. Kate and Josh explained in detail how observing each other's classes helped them reflect on the specifics of how they could integrate the 5Cs into their own lesson plans.

Kate: Well, when I observed Josh's class he...it was in here ...and it was a round table format and they were having their community portion of the day which I think that rule [pointing to the board] is ...is...those [group chatter] is linked to it. So it was a really interesting time to observe because it fit perfectly in with what I was like looking for... you know Josh's tone was really like calm and inviting and the tone of the class was very relaxed and you know you could tell everyone was very comfortable with each other. Any tension between

students was not evident in that setting. And just really um reinforcing you know, how do we communicate effectively with each other ...

Josh: I really appreciated observing Kate and I thought, I thought her lesson had a very, kind of intentional inclusion of all these things ...umm... and it was kind of cool because it was a science lesson but it was also about like making ethical choices as a consumer ...

These observations of each other's classes reveal how the process itself led the research group members to reflect on their own practice to make changes in how they present and teach the 5Cs. In delving into the details of their observations of each other, it gave the group an opportunity to reflect on their original purpose for activates and how well it met those, and the challenges of assessing such diverse and occasionally unstructured situations.

Josh: Yeah, you know the goal of that ...of those meeting is to try to build the circle and to build the community and so we kind of start off with simple questions using these guidelines and then eventually you want to get to a place where we can be more honest about what's going on in our lives, where we can address issues that are happening in the group you know, so that its ...it's not just this fractured chaotic group of teenagers but they're a community and for better or worse they can help each other and support each other ...umm...now how do we measure that that's happening?

This particular example highlights how an idea like community is not merely a skill or subject to be taught but a complex and dynamic relationship that must be built and experienced. It led to the group digging into the distinction between assessment and documentation.

Documenting the process

The discussion circled around to how the school communicates to parents and the larger community the value of the projects that do not include a graded or (standardized) measured assessment. This led the group to an awareness of the absence of reflection after many projects. Through the course of the discussion the research group decided to be 'ducks'. A reference to the common expression in abductive reasoning or inference, 'if something looks like a duck, swims like a duck, and quacks like a duck, then it

probably *is* a duck'. The group expressed that the school needed to commit to the program as stated and stop trying to produce a curriculum that looks like everyone else's when the program itself is different. It was decided in the next round of observations to be more directed and look for what is missing and how to document what is happening with the Cs in relation to PBL. This is also an example of the flexibility of participatory research and how it responds to real situations.

As the discussion progressed a strong demand was made for declaring the connection between the school's program, its ability to respond to real life circumstances and to 21st Century skills, and the value and importance of the NCR. Upon reflection it is clear that the research group had jumped on to the next question of: how can we improve what we do?

Me: Or even in the Conference Report like a piece of...not the whole thing but a piece of the Conference Report is their documented description ...with leading kind of questions that lead them into to answering about things

Peter: And we can have photos and we can have that whole packet with ...from the beginning they have a brainstorming where they ...what materials they want ...then they're engineering how they're going to build it...

This exchange highlights the groups awareness for more robust and specific elements to the NCRs. It also notes the lack of student voice in the existing reports and suggests the need for photos and more documentation than 'words'. What the research group was seeking was a better way to document the depth of what happens in PBL or in group work and how it reflects growth of complex skills:

Sandy: Because that goes along with the line of the narrative transcript too [group agreement] like we're basically documenting growth and ...

Kate: Measuring implies a scale

Laura: Yes...and we don't really have like a ...0 to 10

Peter: We don't want the scale, we don't want the A, B, C ...we don't want the

Laura: So, I think just documenting [group talk] ...that, and like you said the narrative

Me: The narrative and the reflection.

Again, this discussion returned to the group's resistance to a scale, or anything that could be viewed as a scale by students. At this point in the discussion the group noted that what they were doing together was also a reflection of what they were looking for in the students (authenticity).

Sandy: Now when I'm...observing one of my colleagues though...and I'm looking at like collaboration, because there were times that like ...I saw Vince working with diverse points of view or you know ...managing conflict really well, working with ambiguity ...am I assessing him, am I like observing him...on this same basis...or? OK...alright [I must have nodded]

Me: [laughter] Yeah! Well yeah... [group talk] I mean aren't we also modelling for them...

This observation that we were participating in a process that reflected what we were asking the students to do helped the group to connect reflection to practice. Again, the question of documentation surfaced in relation to credits and the challenge of graduation transcripts for the high school students. How do you give broad picture credits for complex and integrated courses?

Me: Well, what are they going to get credit for? I think is what gets stuck at the high school course...you know

Josh: How do we justify, you know, how do I justify a science credit if ...if it has voluminous content?

Me: Which is where ...I... mean...I ...not going to be a surprise but where I like ...how far do we want to push the envelope on how we do our transcripts for high school?

This conversation returns again to the tension between numerical scores and narrative description, especially for high school students and their transcripts. It raised the question of how our NCR can be transcribed into a usable document for college admission and scholarships.

It is about half-way through this meeting that there is a palpable shift. Without getting too immersed into dissecting the dialogue, because the research could have focused solely on that, it is important to reflect on the process here and what changed in the dynamics that brought about the energetic shift in the

conversation. The members are almost all talking over each other, owning the program as different, unique and special. Has the time that was spent observing each other, talking about what the school does, or even what the group wants to be doing contributed to this pay-off? There is a sense of comradery. We are in this together and we believe in what we are doing.

Sandy: Let's just be ducks. We quack like it ...we walk like it...we talk like it...let's do it ...why are we trying to pretend like ...

Peter: (at the same time) Yeah...put up or shut up...kind of thing...trying to find something other than shit or get off the pot...kind of thing...but that's what I'm thinking ...you've got to either commit or don't ...you know...go for it

These comments demonstrate the genuine engagement of the research group members with the process and their pride in owning our program that is both different and unique. The members then started revealing personal stories about their motivations for teaching and what shaped them in their own practice. It is almost as if there is, at this point, a desire to be seen and acknowledged as genuine and authentic. This reveals the power of participatory research to engage practitioners in their own development and the desire to share their personal stories with each other. This also reflects the view described in the literature review of teaching as craft. The teachers are discussing phronesis, or how they make wise judgements in particular circumstances and the challenge of documenting this process.

Focus Group Three

One of the research group members began the third focus group meeting without my prompting. Sandy quoted William Bruce Cameron stating that "not everything that can be counted counts and not everything that counts can be counted". This comment indicates a power shift. The research group members entered the focus group meeting energized and ready to discuss the research. This particular moment struck me as important as I had used that same quote in an article about assessment (FitzPatrick, Bruce, & North, 2017). It was interesting to me that we had found meaning in the same quote independent from each other and

connected in back to our current problem related to assessment and value. The three areas that will be discussed from this meeting are:

- Observing each other's practice (in relation to power)
- Documenting the process
- Designing a framework

Observing each other's practice (in relation to power)

The research group shared lengthy descriptions of their observations of each other, this time with more emphasis on the 5Cs. While in the previous two meetings the remarks were short, this time each description was more detailed and specific. They also reflected on the fact that the process of CPAR and the spirals of reflection and action had made the research group members more critically reflective teachers. Being observed made them more critical of themselves, with a desire to perform well.

Josh: ...when there is somebody there observing you ...you don't want to like...trip and fall on your face ...or like ...you know just tell the kids ahh just just watch a movie or something ...not that we do that ...but...I find it ...I find that it's ...that it helps me kind of raise my game a little bit ...and...makes me a little more critical ...as to why I'm doing things or how I do things ...

The time we took in the previous focus group meetings, to get on the same page, made the observations more meaningful and developed trust in each other as professionals. The members' own words (*sayings*) in reflection on this process of observing each other's teaching (*doings* and *relatings*) reveals a level of trust and a sense of purpose to the observations. These observations were not merely boxes to be checked but held value to the individuals involved and reflected the skills they were modelling for students.

Kate: Yeah I was really mindful, of like, how I was presenting these 4Cs...while being observed ...like hmm ok...how can I incorporate that right now on the fly ...if I hadn't thought about it beforehand which ...and also knowing that we're all observing with the same set of criteria ...was helpful because I've been observed a lot by different types of teachers who have different sets of styles and what they think is effective ...So you might be doing something that seems really great and really integrative...but they're going to look

at that ...and be like...oh no 'cause you didn't include ...yeah...you didn't make this point or your being too conversational or whatever ...But with us it's like we all...we all have the same kind of end goal with it...so ...knowing that ...put me at ease at the same time that it kind of lifted my desire to, you know...do my best

Kate expands on the value of having the research group all on the same page and looking for ways to help each other reach the same objectives. This addresses the issue of trust and allowing another practitioner into the class, and not to be perceived as 'spying eyes' (as one research group member termed it) into their classrooms. She reflects here what several of members the research group expressed, that it was supportive and helpful to have colleagues visit their classes and look for ways to help improve their practice, not criticize it.

Peter: Yeah helping each other ta...so I even when I, ever like go in there...I'm not even sure I go into it with the approach ...because I have observed teachers before ...as a mentor teacher or different things, even as administratively gone in, an over a group and had to fill out boxes and paperwork and you know ...hours' worth of paperwork afterwards ...so I've done that ...This doesn't feel like that ...This feels like we are all ...we're doing a group project and this was my part ...our role in it

Laura: Now we represent the 5Cs when we come together

Peter notes the way in which these observations were carried out felt natural and authentic, not some formal observation for merely administrative or arduous paperwork. The talk then moved on to why the members of the research group felt there was so much support for this process and that they feel safe being vulnerable in front of each other:

Sandy: ...so I feel like that kind of gives everybody space to have their own style and... to feel safe in that... and you know ...you're not going to expect somebody to be like ... Oh you were too conversational.

This another demonstration of the trust and relationship building that occurred during the cycles of reflection and action. The research group became more of a team that was there to support each other in their practice. A demonstrable change in the *sayings*, *doings* and *relatings*. The research group reflected that they were all teaching the 5Cs at some level, and the question became; 'how are we doing it?', not if

we are doing it. This is a powerful awareness that led to increased ownership of the program and pride in what we (as a team) were doing together.

Peter: How can I write it down...articulate it...yeah exactly...that's kind of the approach that I took...it wasn't like I was ...coming to see if you were doing it

Sandy: And that's ...that's a minor little discrepancy that I think has a huge impact on...the feedback we're ...we're offering and getting.

Sandy nails the point here, that what the group was offering each other in feedback was constructive and well received because the group had demonstrated a supportive environment. As the research facilitator, it was my hope that through visiting each other's classrooms and having focused discussions afterwards, the research group would feel it improved their practice. The questions remained; is it possible to formalize this process; how flexible would it have to be? These questions reflect the same fine line and tensions teachers tread with their students when engaging them in their own learning.

Documenting the process

It became evident, through reading the transcript, that I felt we were falling into the same trap that the research group members fall into in their classes with a lack of documentation of the process. There was no formal capture of the observations the members were making of each other. This is a moment where the challenge of CPAR is evident. The power of the initial or lead researcher and the tangles of job responsibilities or administrative role bleed into the decisions of the research. This conundrum led me to ask the research group some questions:

Me: What do you want to get from the person who has observed you? ...is there some kind of umm notes or feedback?... my worry now that I ...like listening and thinking about that is these conversations that you just had ...if...is that enough ...this conversation ...or do you need more kind of documentation for later for writing your conference reports?

I was pushing my own agenda here, thinking that I myself, as the doctoral student, would benefit from more data, and also that 'I' thought this process needed more documentation to be effective for the research group members. My question elicited some resistance. There was pushback to 'formalizing the

process' and fear that we would be creating a standard document that would remove the organic nature of the process.

Sandy: I think it's plenty...I like that...I like that...it doesn't hem us down to a...the only ...accountability and requirement is to go observe and then talk about our observations...we don't have forms to fill out and paperwork to submit

Sandy's tone also reflected a worry, or hesitation, and that the organic nature of what we had been doing would be tainted by a more formalized process.

Peter: Well why would they need the paper trail? You know it just doesn't unless you're gonna be sued or something ...

Laura: And for them to read stuff like this...whatever.

These responses also speak to the issue of power; the teachers wanting to maintain autonomy over their professional development without eyes peering in to check up on them.

Designing a framework

In the second half of this meeting the research group talked about specific actions they could take to change how they were documenting students' work. These included articulating clearly on the NCR how the 5Cs were included in the different projects that teachers designed for their classes.

Josh: I think ...ummm...what I would like to see next is maybe as much as we can a collaborative conference report that we all at least in some shape can utilize ...and one that focuses on our 4-5 Cs...

The group sounded energized for the task ahead and discussed some of the individual changes they were planning as a result of our work together. Josh and Laura highlighted the need for a consistent structure, and how that structure could help to focus class or project outcomes.

Josh: I think that could be a cool way to structure your conference reports for sure but something for us to think about too is like, rather than like...I mean maths not the best example but like instead of just reading your conference report is almost like this was the big project that we tackled ...and then describing it and then a little bit of narrative feedback for each kid ...but then highlighting all of those ...critical thinking ...I mean basically

what you just said ...but instead of a traditional like report card looking thing its project based ...the big projects that you tackled

...

Laura: a project page ...like when you did the canes ...or whatever and you I think as a teacher an know kind of what ...what was in that. What you wanted to come out with it, but how did your class respond...to that ... So I thought, well if there was a page maybe you know, the teacher could make comments on the page.

Here Laura is noting that the structure of the NCR would also force a change in the structure of particular assignments. Those assignments would clearly state the 5Cs in the outcome or design of the project. She goes on to describe what could be included as documentation.

Laura: ...I had 5Cs... by participating in the project ...an it would be something that would be included in an assessment portfolio ...and I don't know if it could be like just on ...I mean it doesn't even have to be paper based ...but...but I thought then who do you leave out that I think that everybody should weigh in on it, if you're on the project... Once again this a project based and not an individual ... you know and I know we were kinda trying to get away from you know 1 through 10.

Laura articulates a way to formalize the capture of participation in group projects that include some student reflections on their own learning. This was an issue we had returned to often. The group felt that as a school we are doing this, but that there was a lack of documentation of this reflection process. The struggle, or tension in designing a framework, was between having a document that provided structure and consistency between levels and not controlling or interfering in the organic nature of project development.

Below I have included the axial coding I created related to the theme of *process*. The open codes inside the chart were collected from the transcriptions of the focus group meetings and the semi-structured interviews. These open codes were sorted into the category of process, and then went through re-coding with the assistance of reflective memos to generate the questions that categorise the groupings or columns of; building rapport, designing the structure, how are you feeling?, and why engage?. It was through creating and analysing the table that I was able to see the main topics of discussion in the research group

meetings. It was from this table that I was then able to construct the gerund phrases identified at the beginning of the findings of the process.

	<i>Building rapport</i>	<i>Designing the structure</i>	<i>How are you feeling?</i>	<i>Why engage? (Power)</i>
<i>Process</i>	Collaboration	Clarification	+Engages my creativity	Autonomy
	Community	Consistency	+Energetic	Energy
	Connections/ed	Continuity	Fearful	Engagement
	Discussion	Different Beliefs	+Fun	Freedom
	Relationships	Feedback	+Positive	Motivation
		Follow Through	Struggle	Recognition
		PLD	+Authentic	Different Beliefs
		Improved Practice	+Productive	Empowered
		Specific practice	+Empowered	
		New Learning		
		Observation		
		Time		
		Reflection		
		Theory		
		Tipping point		
		Modelling		
		Importance		

Figure 20: Coding for Process

SUMMARY

The three focus group sessions identified key areas of importance for this particular research project: In focus group one the key areas were; getting on the same page, involving students in their assessments, and querying the role of assessments. In focus group two the key areas were; querying the role of (assessments/curriculum/teacher), observing each other's practice, and documenting the process. In focus group three the key areas were; observing each other's practice (in relation to power), documenting the process, and designing a framework. As the third focus group wrapped up, the research group set two main

goals for the upcoming in-service meetings, one was related to formulizing the professional learning and development practice and the other was reworking the format of the NCR.

In the in-service session, the research group did the work of adjusting the curriculum, updating the format of the NCR, and designing a framework (or structure) for PLD for the following year. The research group was functioning in a dual purpose here, as researchers and as teachers reflecting on the previous school year and planning the next. The group was still reflecting and acting in spirals of action research, the action had just shifted to remove the students and was focused on improving the curriculum documents.

The previous description of the process represents the work done together and what the research group thought about the focus group meetings, and the in-service time. It includes my observations and reflections along the way. The interwoven elements of dialogue, authenticity, and structure were present through all of the transcripts. In listening and reading the transcripts I asked myself what are the key factors that could help others understand our CPAR process and were there any central themes that could clarify this research and improve upon the cycles of reflection in which we participated. The findings reveal that CPAR aligned with the philosophy of progressive education and provide these practitioner researchers with platform to change their *sayings*, *doings* and *relatings* together. Identified in the findings was the importance of dialogue, authenticity and a structure to the process that will be expanded on in the discussion of the Process. The reflection on the Process highlights the way in which we travelled, including the side roads and wrong turns in order to point out the moments of engagement, frustration, and empowerment that kept the research group members invested in the study and contributed to the outcomes of the research.

4.3 POWER

The findings indicate that power exists as the gradient soup with fuzzy boundaries and is therefore complex and attached to both the Products and Processes of the research. The elements of power were articulated most clearly and loudly by the research group members in the semi-structured interviews. These reflexive interviews also served as an important step in the process, a component of the experiential learning cycle, and the re-planning stage of the cycles of CPAR. The findings of this research show that taking the time to reflect on the process itself provided the research group members with the powerful and necessary step of reflection on what worked or didn't work in the process in order to make adjustments to their individual teaching and the PLD plan for the upcoming year. It was the time in the research when we the research group had a moment to reflect on the power of the research to the individual members, the school and the community.

To find and identify the moments of power throughout the transcripts was challenging. It was woven deeply into the fabric of both the products and the process (Charmaz, 2014). The connection between power and the elements of product (*doings*), process (*relatings* and *sayings*), and individual power (*relatings* and *sayings*) and are highlighted in the following sections.

What follows is an organisational structure of thinking about the influence of power on this study that has been sorted into three categories;

- 1) the power of the products,
- 2) the power of the process and
- 3) the power of the people.

These distinctions are for clarity in representing the findings on power, and I recognise that power is a combination of all these strands together.

The power of products

There were several ways in which the research group viewed the power of the products of the research.

These products were perceived by the group to contribute to changes in education. Some were large changes from a global perspective, while others were smaller, more local changes to the school's specific programs. The research group members believed that their work was contributing to these changes, and this feeling was empowering. One of the research group members noted a potential problem or issue with transferability of what we were doing, that as a small school, we have the power to overhaul our curriculum while other public schools could not because of their size. However, this can be seen as an opportunity for an independent school to make changes that can be studied, refined and then applied to other settings if it is logistically possible.

Josh: Well it's the same argument we made yesterday for why an independent school is, is interesting and useful, as we can make changes. We can change our entire curriculum ... can change our approach to education you know so yeah ...it is challenging in a kind of a more bureaucratically founded school I guess...

This represents the power that a small independent school can wield over its own practices that larger more cumbersome to bureaucratic institutions cannot. As a small school we have the power over our products from year to year, and the ability to make our own desired changes without external power preventing such changes.

One of the group's particular products, an improved NCR, was also seen as important on a smaller scale, to the school's families. Through an improvement in the language and framework of the conference reports, parents would have a better understanding of why their children were benefitting from this progressive model of education. The following quote demonstrates how Laura believes the work of the research will translate into improved communication to the parents in the school.

Laura: Yes...but I would like somebody to critique mine ...so I was hoping like at least he [Peter] would kind of read over mine ...I need that...and that's doable... like you said it's the next step ...then we present the conferences with the parents...and I think our parents are really gonna like it

She also describes the level of trust she has with her colleagues in asking for assistance in improving the language in her NCRs.

There was an articulation from the research group members of the power of the Product and power of the Process that engaged them throughout the semester. What the research group was doing meant something and it improved their practice in the classroom and their understanding of the school's mission and vision. This research makes an important contribution to educators who seek to improve the meaning and value of narrative style assessments for students and the process by which teachers collaborate to produce them. Here I have considered the outcomes (or products) for the school where the research was conducted. These have to do with ensuring the consistency of the school's program, the alignment of the program to the school's mission statement, and the potential for teaching this PLD model to others.

The school has struggled for years to have consistent language (*sayings*) to frame the value of its program (*doings*). One powerful product of this research was a tangible description of what the school is endeavouring to do, and some of the ways it goes about doing it. There have been in-services and workshops in the past where teachers and staff have worked to get on the same page, but this research has created useful documentation to keep the school on that page. This written, consistent message will also help new teachers at the school by clearly defining what the school does and how it does it. Further, it will communicate to prospective families how this school works, and its differences from a more traditional, public school program.

The products created by the research group also improve the alignment between what the school says it does and what it actually does, an alignment between *sayings* and *doings*. The established mission statement of the school is lofty and somewhat ambiguous. It reads: *“Together all at Open Horizons, promote a lifelong love of learning through a hands-on and hearts-engaged educational environment”*. This mission statement has been a source of confusion over the years, specifically, “what exactly is hearts-engaged, and how do you know you are achieving it?” This research group attempted to document what ‘hearts-engaged’ activities look like, and how you present those specific activities to parents and students. The improvement in the language and structure of the NCR was one means to improve this issue. The research group also addressed this challenge through the creation of a new curriculum framework, and templates using backwards planning and plus essential questions for PBL. Creating frameworks and documents will allow the school to evaluate their effectiveness in the coming years and improve the program with each cycle of continued PLD. These products, the NCR, the PLD plan, the shift in culture and an agreement on language were significantly valued by the research group members. This was evidenced by the depth of the discussions, their continued willingness to actively participate in the research process, and their comments in the individual interviews. What I will turn to next in the findings is the power of the process of practitioner research itself.

The power of the process

In reflecting on the particular process of CPAR that this research conducted, I have identified as a strength the similarity in the school’s view of students and their learning with the research group’s view of teachers and their PLD. There were many instances when the research group noted the alignment between what we (the research group) were doing together for the purpose of research and what they (as teachers) were asking the students to do in the classroom. The school literature includes the language of ‘meeting students where they are’ and building the student’s educational journey from that point. The CPAR cycle that the

research group engaged in aligned with this language. Together as researchers, we identified our starting point and worked together to improve our practice. There was power in the alignment between how teachers teach and how teachers learn and work together. We were a true reflection of the mission statement, *“Together all at Open Horizons, promote a lifelong love of learning through a hands-on and hearts-engaged educational environment”*.

The structure of participatory action research is designed to ‘give’ power to normally disempowered individuals or groups (Bradbury et al., 2019). The following exchange highlights the ways in which the research group members felt empowered by the structure and process of the research.

Sandy: I really feel like you’ve got it spot on. I loved your balance of the questions and the breakout sessions...and again you did a superb job at hitting that intersection between autonomy and cohesion and support

Me: It’s structure...a structure that leaves it open...a form...form?...maybe form is better than structure

Sandy: Because you empowered us to be us...and do our own thing and have our own thoughts and make our own contribution an...you empowered us in a really safe...a safe space...and I thought you did a really good job...

Sandy’s reflection on the power of the process reveals that she felt valued and supported through the process. That the process itself engaged the group to act. Several of the research group members referred to the balance of power in the design of the research, since it was often one of the things they enjoyed about the research. The following quote demonstrates that sentiment:

Vince: It’s not one of those... you didn’t stand in front. Teach us about the C’s and be like Okay here’s what’s happening ...it was the whole time, it was let’s go on this journey together right, and, and that round, you know about roundtable ... that roundtable idea of the whole thing, made it made it enjoyable ... and it’s ... I think it’s partly why we’re all adopting the circle thing is, it just works though.

The circular table we sat at was, in fact, the one the high school students use for their morning meeting and community sessions. It is another example of the consistency between what we were doing as a research group and what we were asking students in class.

Vince: ...it takes away that like hierarchy ...and I really like that a lot because it gives people the freedom to speak but then also listen and ... you know everyone's got eye contact with each other you're not yeah you don't have to you know back listen to someone in the back corner of the room trying to say something. It keeps everyone engaged ...it's cool.

Vince continued to explain why he liked the roundtable format and how it affected the power dynamics of discussion. One of the effects of our discussion style that I had not anticipated, which was in relation to power and hierarchy, was the impact on the younger and less experienced staff. In fact, Mary noted in her interview that one of her struggles was confronting “imposter syndrome” and that sitting in meetings with perceived experts lead her to think, “How can I possibly have anything to say that would be anything that they haven't heard before”. Through the process of the meetings and in-service time Mary did report that “I feel like it's getting easier”.

This process of PLD modelled on the cycles of CPAR tie back to what Brookfield (2017) refers to as critical reflection and collaboration with others. It was through these cycles of reflective practice and discussion that the teacher practitioners were able to identify challenges and propose solutions together. This study also increased my connection with the school and the importance of the program. Toward the end of this research project I was offered the position of Head of School, and my involvement with the research over the four months of the study made its continued success a priority to me. Although the current Head of School and I had been close for many years, there was no expectation (on my part) of there being any continued connection between myself and the school at the conclusion of the study. During the course of the semester that the research was conducted there was some pressure exerted by the research group members in the study on the school administration to entice me to return the following year as Head of

School. The existing Head was already planning to retire at the end of the year. Upon reflection, it is my belief that the empowerment the teachers felt as a result of participating in the research process created a vision of how things could be with sustained emphasis on reflective practice. I also began to feel invested in the long-term success of what the research group had achieved and wanted to be part of the continuation of the process. It was no longer just about completing my dissertation; it was about creating a meaningful plan for PLD that could be expanded with further research and reflection. This is a clear example of CPAR demonstrating its role in improving the agency, or empowerment, of the teachers who participated in the research and of my own as the research facilitator. This led to the following connection between empowerment and agency within the context of the process.

Empowerment and agency

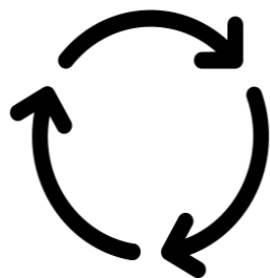
The evidence of empowerment and agency was seen during the in-service portion of the research, it was my most hands-off time in the process. The way the research group answered the questions I asked at the beginning of the in-service revealed how much they had enjoyed the process and how it had built a sense of comradery to the group.

Kate: definitely the relationship building with colleagues has been the highlight of that because it's given us an aligned focus ... and it's like what we've been discussing the language that we needed to really in make progress ... so that's been enjoyable just to get on board with everybody

The discussions that the research group engaged in, put my mind at ease as to the usefulness of the process to the practitioners and demonstrated their level of empowerment through the process. It motivated me, as the research facilitator, to document and discover why this process was affirming and motivational. From my own participation in many in-service sessions, exhausted by what is always a rough ride to the end of the school year, I was impressed with the group's eagerness to work together to make some meaningful changes before the school year broke for the summer. As Sandy noted earlier the process gave the group agency to "...do our own thing and have our own thoughts and make our own contribution". This

empowerment and agency that Sandy articulates demonstrates the power of the process of practitioner research when those practitioners are able to make their identified changes in practice.

The connection between CPAR and the experiential learning



The design of CPAR and experiential learning are ever-repeating spirals. It is this continual process of action, reflection, discussion and change that gives these structures their strength, and power. Both CPAR and experiential learning reflect the theoretical groundings of social constructivism and progressive education. They begin with identifying the needs of the individuals and the needs of the group and recognize that learning is built together and is circumstantial. It is necessary that time

is dedicated to evaluation and reflection of the process. This reflects the discussions in the focus group meetings about the importance of reflection after projects and tests that are often missing from the planning stage or curricular view of PBL.

Me: ...I think the part that's almost always missing is that reflection at the end about what did happen and so talking about...

Sandy: I've had that issue before with like...when we do group projects, when you have that one type 'A' kid that's going to do it all for everybody ...and they complain about it afterwards, and then...I think that's a great questions to ask what did you do to bring people in?

As a group we were identifying the challenge of creating time after a project or assignment to engage the students in reflection both individually and together to deconstruct why the project went well for them, or why they struggled with it. Clarifying the meaning, traditionally a project is considered complete when it is handed in, while these researchers argued in the focus group meetings that a final step of analysis from the students is often absent. The element that is missing is the post-mortem of a project; a project should not be considered done until the class or individual has deconstructed it to see what worked, what the struggles were and what could be done differently next time. In the same way for teachers in their PLD, it

is not enough to make plans for changes in practice. Those changes should follow the CPAR and experiential learning cycle in order to be planned, implemented and evaluated (reflected on) by the teaching staff.

The power of the people

The data revealed that different people exert different kinds and levels of power. There are some potential drawbacks to increasing teacher agency and empowerment. The process itself did highlight some differences that exist in the research group members' perceptions of what we are doing as a school and how to implement the program. Some of that debate was seen as healthy and productive, but there is a fine line between healthy debate and something that generates unrest or festering problems.

Sandy: Na...I mean...because we do have some conflict ...a little bit of conflict there...I wonder if we shouldn't engage in that conflict resolution style ...like what we do with the kids...ummm...'cause as adults we do have that tendency to try ta...sweep that under the covers ...you know...and try to be...super diplomatic and maybe we should be more direct in our communication...and have the sit down an ...I don't know how constructive it would be tho...and that would be my concern because we are adults that come with all that baggage that kids don't have...and so...I don't know.

Sandy had a longer history with the school than some of the other research group members and was referring to past incidents with teachers who had conflicts with the school, or each other. There were times when these conflicts were not dealt with directly and they festered into larger problems or created factions amongst groups of staff members. Although in this research there were no non-engagers, the group member's energy and participation did ebb and flow, a reflection of the busy life of a teacher. There is a danger to CPAR that you must trust the group, listen and respond to their voice and be willing to change strategies and procedures if the research is to be truly participatory in nature, not just name. One strong willed person could lead the group astray or refuse to participate. Danger may be the wrong term, as really it is only a conflict to 'the lead researcher' (me in this instance). The purpose of CPAR is to give voice to the often unheard, so a dissenter, or saboteur is a possible opportunity or sign that a deeper or different issue remains unspoken. The group is not yet all on the same page, or at a point of consensus.

Who are the people of this research? For the purpose of these findings I have identified the research facilitator, the research group members, the administration, the parents, and the students as the people. The dynamics that existed and how those dynamics appeared in the discussions and interviews will be reflected on, in this section. The tension between leading the group toward *my* desired outcome and allowing things to proceed of their own accord was a constant theme, or tension, as the different people in this study exerted their powers. This led to a conscious awareness of the power dynamics on the study and also on each meeting or discussion. It is commonly agreed that good CPAR groups practice reflexivity. “Generally, reflexivity means attempting to make explicit the power relations and the exercise of power in the research process” (Reid & Frisby, 2008, p. 100). So, what were the power relations in this particular study that could influence the research or affect the participatory nature of the research?

The research facilitator

Some power was directly related to my role in the study. As the research facilitator, I chose this study and this location to conduct the research. Also, as a former teacher at the school with a history, I was aware that some tall tales of exaggerated expertise may have existed. The stories told were in fact the good ones that placed my teaching and leadership in a favourable light. There was, however, evidence that the research group members were taking ownership of the project and planning what to do in the following year. They expressed some concerns that the end of the research, and the absence of a research facilitator, might mean some people stopped following through with the ideas and plans that had begun through the research. They wanted to stay firm and push each other to keep on track. Others were a little less certain how the school, or the research group, would make sure everyone stuck to the plan.

Peter: Yeah I think...if we push and say no this is what we said we're gonna do this is what we ... you were pushed for it and I think if a ...and of some of us ... push for that then its gonna happen ... I'm gonna push for it. Wait ... this is what we said we got to stay on track ...

Josh: But yeah, I hear those concerns. Yeah, I'm not entirely sure how to I guess ensure that the framework is being followed.

Both Peter and Josh were expressing their concern that without a research facilitator in the following year, who would ensure that the group was continuing what was started. The concerns that were expressed following the completion of the research revealed that some members of the group had doubts about the continuation of the professional development process in the absence of a research facilitator:

Laura: I am concerned that this year you are going to be gone...is umm...is just going ...it's going to be ok...but I feel like that we are not going to be as far along as we probably would be if you'd stayed this year...but I don't want you to do that of course...but I just feel like...but once again there's just only a weak link or so...in it ...and we are just gonna have to see.

In this statement Laura reveals some concerns about the effect of my absence (as the research facilitator) on the continuation of the work started together. She hints at the fear of a 'weak link or so', meaning that just one person choosing not to follow through on our plans could derail the progress made.

Sandy: My major concerns...is just that ...it's not too major ...I mean naturally I'm concerned about you going away and being physically gone ...next year.

Again, Sandy notes some fear in the consequence of the absence of the research facilitator.

Mary: I don't worry about your follow-through. I worry about our follow-through. I'd like it if we, you know stuck with it and have the same ...I mean it's not a guarantee to have the same enthusiasm.

This idea that the research facilitator was central to creating the enthusiasm was persistent and reveals the importance of leadership and direction to empowerment. It was a surprising revelation to this study and was counter to some assumptions made at the outset.

On my last two experiences with the school I was brought in as an expert to train new staff in school procedure and it was common knowledge that the school was trying to entice me to return. These circumstances may have contributed to creating a distance between me and the other research

participants in the power dynamic and a viewing of me as the expert to be listened to, or perhaps a future (potential) boss to be impressed, but not challenged. Being aware of these dynamics as the research facilitator, I made attempts to quiet my responses, deflect to others, and ask for clarification. It was a concern of mine that some of the responses given were to please me, rather than being genuinely held beliefs. Noted in my journal from the data collection period were musings on comments made around the subject of the research from colleagues. "A number of side comments were made about how the academic writing of this research was beyond them" (personal journal, 26th February 2018), implying that I was 'smarter' or more academic than they were. I may not believe this to be true, and possibly they may not either; but the thought itself potentially affected the power dynamic and the relationships that existed.

The research group members

The research group members were crucial to the success of this study. They are the ones who would observe each other's practice and reflect on the consequences on their actions. The power of the group was revealed in the dynamics and quality of the conversations (*sayings*) the group had, the changes in their practice (*doings*) and the support for one another (*relatings*). In this way the group represented how the cycles of CPAR could produce quality products and a shift in the culture of a group working together. There is a power to synergy and an empowerment that occurred during this study. Sandy most explicitly named this in her semi-structured interview.

Sandy: I've enjoyed the sense of like the intersection between autonomy and cohesion...that I think is really really intoxicating ...it is... and again I feel like that's that area where you empowered us because I do have that ...that sense of autonomy ...but I have that sense of support ...and ...and I feel like even...like ...even if I throw out just a little germ of an idea ...I feel supported and that it will be built upon...and then it becomes ours...and I love that mutual ownership ...that then yeah...I love that autonomous feeling.

Sandy here clearly describes how the group coming and working together empowered her as a teacher individually and enriched her feeling of support by the group. This idea of the power of the group will be reflected on in more detail in the discussion chapter.

The administration

The administration of the school was supportive of this research and that support may have influenced the research group members' compunction to participate in the research. Although I wrote in the information letters that participation was voluntary and the head attended the introductory meeting where this was stated explicitly, it was clear to all that the Head of School hoped for a good outcome to the research.

The administration also supported this research structurally by allowing the research group to design a daily schedule that supported the research. This meant allowing for one full teacher meeting a month to be dedicated to the research group and permitting the research group to cover each other's classes to facilitate the observation process. This structural support is essential to the everyday *doings* of the research and continuation of the project beyond the study. The administration also demonstrated trust by allowing the research group to effect changes to the curriculum and NCR structure. This trust cannot be understated. By allowing the research to have a tangible impact on the structure of the following school year it added importance to the products of the research. By valuing the research process, the administration was handing power to the group.

The parents and students

As an independent school that charges tuition, a different level of accountability exists. It adds an element of neo-liberal discussion to the situation. Parents are paying money for a different education, quite unlike the education available at the public schools, and they often question if the program is worth the expense.

The issue of parents and their influence was referred to in several discussions, particularly the need for improvement in communicating what the school does inside the classrooms.

Sandy: We need that consistency, especially because we aren't training for it, so it's something that...I feel that it's really important for us to have that framework as much for the teachers as it is for the parents and the kids as well so that we kind of know what we're doing and know have a better sense of it.

Peter: Because one of the things that... I don't know how to really put down in words...

Me: I'd like to help with that, but I would like to be able to give new teachers and families that kind of hanger, that framework, to understand the method (to our madness) the method to what we are doing, and it would help ... I think it would help in the situations where I think as teachers sometimes, we start to panic that we're not doing enough academic work ...because we don't have the vocabulary and the language to discuss the ...this other stuff

Communicating clearly and effectively to parents that what was happening in and outside of the classroom was educational, and in what ways it was educational revealed itself to be of great importance and influence. The debate around a graded transcript for the high school students was initiated by parents concerns over college admissions.

Although the students were not included explicitly in the research study, their power and presence pervaded every element. During the focus group meetings, the research group members noted there was the lack of student voice in the writing of the NCR. This was seen as a problem to be addressed.

Peter: sometimes I will go to one of them and just ask them...*what are you learning? Tell me about this...what are you learning about* [italics represent a change in tone], especially when I've given them some sort of freedom ...what are you learning ...and they start I telling you ...it is the way they described it back to you that tells you ...that they are teaching you what it is they're learning ...that tells you they know it...so somewhere in there if we can get that piece in there, where you're asking *what are you learning?* If they can't tell you then somethings not happening ...[general agreement, some talking over] if they can't tell you something about what they're doing...

Kate: I wonder if ...students wouldn't benefit from studying the life-skills...and getting ...communicating with them to establish what they think that means, because if they could

assess themselves on the life-skills and we knew what their idea of integrity is, then they'll be able to, they'll be able to communicate where they feel they are and we can give them reflection of what we see with them and then they'll be able to kinda put the pieces between their subjective experience and our observing of them...

This lack of student voice in the NCRs led the research group to reflect and change how they were involving the students in their own assessments. A few of the members took this on and added sections of the NCRs to be written by the class as a group and even some individual self-assessments. Specifically, in the focus group meetings the research group members asked the question 'when and how are we asking the students about their learning processes?'

Below I have included the axial coding I created, related to the theme of power. The open codes inside the chart were collected from the transcriptions of the focus group meetings and the semi-structured interviews. These open codes were sorted into the category of power, and then went through re-coding with the assistance of reflective memos to generate the questions that categorise the groupings or columns of; who has it..., why it exists..., why do this..., and what gives this process power.

	<i>Who has it...</i>	<i>Why and how it exists...</i>	<i>Why do this...</i>	<i>What gives the process power...</i>
Power	Autonomy	Balance	Important	Autonomy
	Teacher	Hidden	Recognition	Energy
	Student	Hierarchy		Engagement
	Trust	Dealt w/Conflict		Shift
	Researcher			Motivation
	Influence			Freedom
	Imposter syndrome			Power

Figure 21: Coding for Power

SUMMARY

Power connects the elements of this study and is the force that drove or gave momentum to its continuation. It could just as easily have halted the cycles. Through this section I have highlighted power from three different viewpoints. Power in relation to the products of this study, power in relation to the process of this study, and power in relation to the people of this study. The products of this study included the improvements to the NCRs, the plan created for a PLD framework, an agreement on language used by the research group members to document the learning and assessment of 21st Century skills, and the shift in the culture of the school. The process identified in this section laid out the necessary structure reflected in the cycles of CPAR of action, reflection, discussion and change, and the importance of both empowerment and agency of the research members to full engagement in the process. The people in this study whose power was identified were the research facilitator, the research group members, the administration, the parents, and the students.

In chapter 4, I have documented that the findings reveal the importance of Product, Process and Power in shifting pedagogy or instituting change for this group of practitioner researchers in the realm of education. There were three distinct activities that the research group engaged in; the focus group meetings, the in-service, and the semi-structured interviews. Each activity had a different character and structure but the 3Ps were present in all of them. Through this chapter that present the findings I have captured what was said in the meetings and recordings, what we did as a result, and what the research group members thought about the research process as a whole. Although this research was specific to this school and its challenges, there are lessons and structures to be derived that may have implications for other contexts.

CHAPTER 5: DISCUSSION OF THE FINDINGS OF PRODUCT, PROCESS AND POWER

In this discussion chapter I will wrestle with the research question asked, both the outcomes and the process, and why the research group felt it was successful or whether it improved their practice and experience of teaching. This research reveals an authentic process and a change in the practice of the practitioner researchers involved with the study. They articulated a greater understanding of their own practice and they improved their understanding of progressive education in general and at this site of practice in particular.

The criterion of success is not whether participants have followed the steps faithfully but rather whether they have a strong and authentic sense of development and evolution in their *practices*, their *understandings* of their practices, and the *situations* in which they practice (Kemmis & McTaggart, 2005, p. 563, italics in the original).

The research also mirrored the mission of the site of practice, which is also in alignment with the participatory research. For example, the mission statement at the school where the research was conducted reflects engaged and participatory learning.

Together all at Open Horizons School, promote a lifelong love of learning through a hands-on and hearts-engaged educational environment (school mission statement).

Other researchers using grounded theory for data analysis have noted the usefulness of models and diagrams to help make sense of data in sometimes messy qualitative research (Buckley & Waring, 2013; Umoquit, Tso, Burchett, & Dobrow, 2011). The visual model, represented in figure 22, is my best attempt to communicate the research process that we, as a research group engaged in. The solid colours of Product and Process with their distinct boundaries, sit in the gradient soup of Power with fuzzy boundaries. I visualize Product and Process held in place by the magnetic forces exerted by the different influences. There is also a force or motion that keeps Product and Process rotating. This research was a constant process of reflection and searching for evidence to support beliefs. A reflective discussion of the three themes that were identified are examined in further detail in the discussion of the findings.

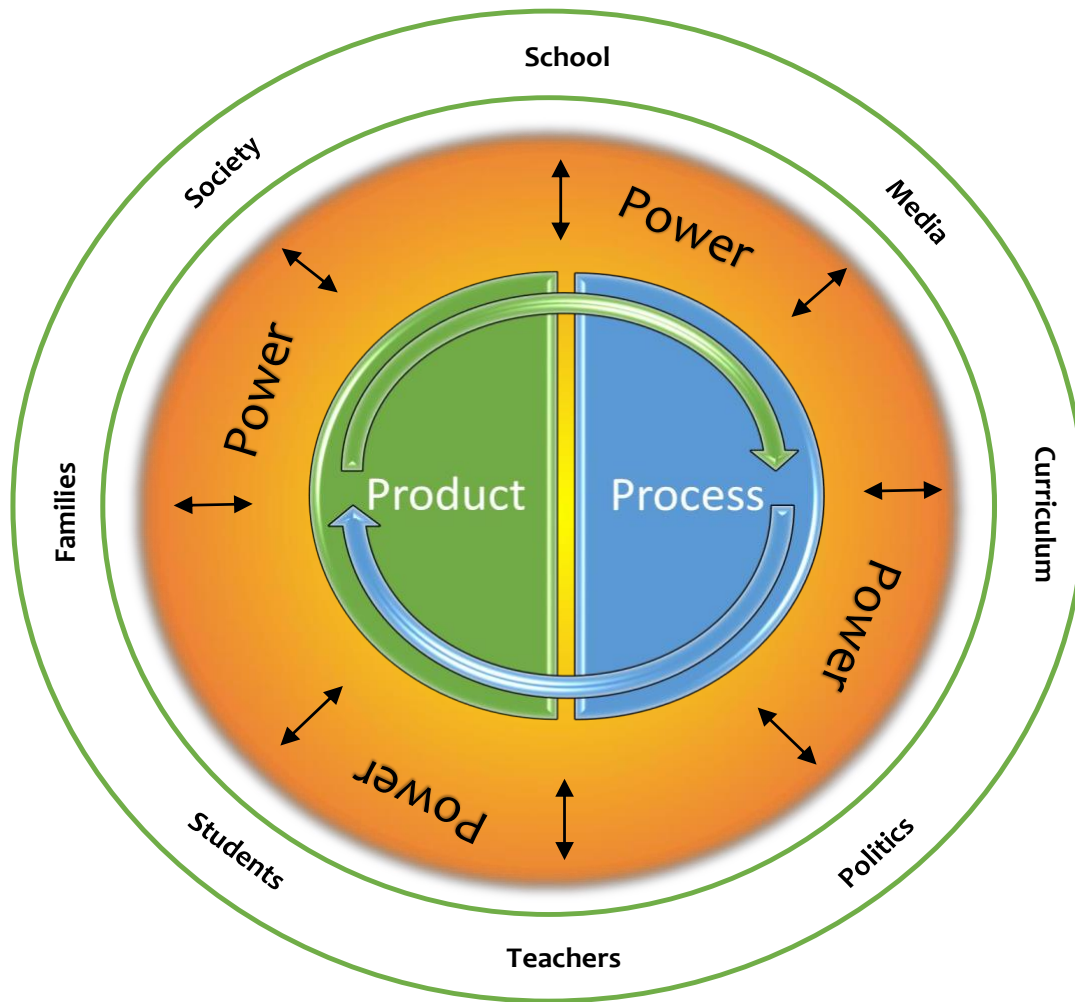


Figure 22: Visual representation of the relationship between product, process and power

Kemmis and McTaggart (2005) describe participatory action research as “a social process of collaborative learning realized by groups of people who join together in changing the practices through which they interact in a shared social world in which, for better or worse, we live with the consequences of one another’s actions” (p.563). It involves looking at the actual site, not at some abstraction or theoretical interpretation of progressive education, it requires investigation of what is actually happening in practice. This group of practitioner researchers wanted to more authentically reflect the ‘Open Horizons way’ and in order to do that better the research group needed to understand more deeply. By following the model of

critical participatory action research (CPAR) this group was able to investigate their own *sayings*, *doings* and *relatings* and in this way come to a better understanding of their practices and how to change them.

A practice is a form of socially established cooperative human activity in which characteristic arrangements of actions and activities (doings) are comprehensible in terms of arrangements of relevant ideas in characteristic discourses (sayings), and when the people and objects involved are distributed in characteristic arrangements of relationships (relatings), and when this complex of sayings, doings and relatings 'hangs together' in a distinctive project (Kemmis et al. 2014, p. 31).

In this instance, our research project was held together by the combination of the products, process and power identified in the findings. The group held meaningful discourses in the focus group meetings and more casual conversations with colleagues, they changed some of their practices of teaching and assessment and built a culture of trust and professional support and development together. Some of these are changes to practice identified by Kemmis and McTaggart (2005) that can be achieved through following a CPAR model include:

- What people do
- How people interact with the world and with others
- What people mean and what they value
- The discourses in which people understand and interpret their world (p. 565).

This helps to address the research question:

How can professional development of teachers be framed to connect to the practical experiences of teaching and theories underpinning progressive education to better understand the difficulties of articulating 21st Century skills to the school community in a society heavily influenced by neo-liberalism?

This discussion chapter will connect the findings to the literature and answer some questions as to how this research project contributes to the field of practitioner research. Darling-Hammond (2006) notes that teaching in the 21st Century requires a return to Dewey and the idea that teachers adapt to the needs of the learner. These strengths are both pedagogical and practical, in that they demonstrate an alignment between what the school espouses and how teachers practice their craft in the classroom. Woven throughout the discussion are the answers to the five things that Kemmis, McTaggart and Nixon (2014) identify that only participatory research can do:

1. Only participatory research creates the conditions for practitioners to understand and develop the ways in which practices are conducted ‘from within’ the practice traditions that inform and orient them.
2. Only participatory research creates the conditions for practitioners to speak a shared language, using the interpretive categories, and joining the conversations and critical debates of those whose action constitutes the practice being investigated.
3. Only participatory research creates the conditions for practitioners to participate in and develop the forms of action and interaction in which the practice is conducted.
4. Only participatory research creates the conditions for practitioners to participate in and develop the communities of practice through which the practice is conducted, both in the relationships between different participants in a particular site or setting of practice, and (in the case of a professional practice) in the relationships between people who are collectively responsible for the practice (whether as members of a professional body or as professional educators or as researchers into the practice).
5. Only participatory research creates the conditions for practitioners, individually and collectively, to transform the conduct and consequences of their practice to meet the needs of changing times and circumstances by confronting and overcoming three kinds of *untoward consequences* of their practice, namely, when their practices are
 - a. *irrational* because the way participants *understand* the conduct and consequences of their practices are unreasonable, incomprehensible, incoherent, or contradictory, or more generally because the practice unreasonably limits the individual and collective *self-expression* of the people involved and affected by the practice,
 - b. *unsustainable* because the way the participants *conduct* their practices are ineffective, unproductive, or non-renewable either immediately or in the long term, or more generally because the practice unreasonably limits the individual and collective *self-development* of those involved and affected, or
 - c. *unjust* because the way participants relate to one another in the practice, and to others affected by their practice, serves the interests of some at the expense of others, or causes unreasonable conflict or suffering among them, or more generally because the practice unreasonably limits the individual and collective *self-determination* of those involved and affected (p. 5).

Where identified the “**things**” will be bolded to indicate which statement is being answered.

5.1 PRODUCTS

The products identified in the findings were sorted into two categories tangible and intangible. Both kinds of products gave action and direction to the research, held value or importance to the research group members and affected the *sayings*, *doings* and *relatings* of the group. These also highlight the **first two of the five things** that only participatory research can do according to Kemmis, McTaggart and Nixon (2014). This discussion of products is divided into two sections;

- a) how the products drove the project, and
- b) the effects of changes to *sayings*, *doings*, and *relatings* to the products of this research.

How the products drove the research project (conditions to speak and understand)

The more tangible products of the curricula documents appeared to give direction for the research group.

In the first focus group meeting a large portion of time was dedicated to establishing and agreeing on our shared language or our *sayings*. As a research group we identified the need for consistent language that framed student growth in life-skills and communicated that growth clearly to parents. Although the life-skills and character education have been valued in the school, they have not been consistently implemented nor documented adequately. The research group articulated the importance of documentation in order to assist the training new teachers to ensure that there is consistency and continuity in programs, while still allowing for emergent teaching and learning practices. Teaching is a craft and a relationship between student, teacher, parent and school that is not a simple step by step formula that can be replicated. Biesta (2016) notes that teaching is not merely a technical relationship of input and output and that we must 'risk' it not working in order to allow it to really succeed. Darling-Hammond (2006) talks about this very conundrum in the current push for equitability in teaching practice.

This trickle-down theory of knowledge envisioned that teachers could get what they needed to know from these tools and by following the teachers' manuals and procedures (five rules for a fool-proof classroom management system; seven steps to a perfect lesson).

However, process-product research that encouraged many attempts at creating behavioral prescriptions for teaching ultimately produced decidedly mixed results (p. 78).

Although new teachers often want to know ‘how’ to put their craft into practice, what Biesta and Darling-Hammond are both saying, and what this research indicates in an experiential learning model, is that when teaching is viewed as a craft teachers do not create this by copying others or being told what to do.

The research group felt empowered by their belief that the curriculum documents and improved NCRs produced through this research would improve the school’s consistency and program. By looking deeply at our *sayings*, *doings* and *relatings*, the group was able to identify what was working and what needed to be changed and in this way addressed the **first two things** that Kemmis, McTaggart and Nixon (2014) stipulate that only participatory action research can do:

1. Only participatory research creates the conditions for practitioners to understand and develop the ways in which practices are conducted ‘from within’ the practice traditions that inform and orient them.
2. Only participatory research creates the conditions for practitioners to speak a shared language, using the interpretive categories, and joining the conversations and critical debates of those whose action constitutes the practice being investigated (p. 5).

By investigating the *sayings*, *doings* and *relatings* of the school the practitioner researchers were able to see and experience the consequences of their work together. In this way they were meeting the “criterion of success” (p. 563) that Kemmis and McTaggart (2005) referred to. The findings highlight that these particular practitioner researchers now had a better understanding of their practices and that this research provided the conditions that enabled them to look into and reflect on their *sayings*, *doings* and *relatings* in practice.

The more intangible products of this research appeared to facilitate the notions of empowerment and agency. In the findings this was recognised as a shift in culture supporting what Kemmis and McTaggart (2005) call “a social process of collaborative learning” (p. 563). At the conclusion of the research the group was functioning as a team and modelling the guiding principles of the school, especially ‘we treat each other with respect, we are all in this together, and we promote open communication’ (excerpt from the school’s guiding principles). The group was able to look closely at their actual site of practice, not some abstraction, investigate what was actually happening, not what was supposed to be happening, and make real and observable changes.

The effects of changes in *sayings*, *doings* and *relatings* to the products of this research

The group identified some of the ways the common *sayings* of the school community had interfered with their pedagogical practices. ‘The Open Horizons way’ was a phase that offered confusion rather than clarity. In spending the time to articulate and agree upon what this meant to the practitioner researchers they effected a change in the language they used to describe the school program and gained a deeper understanding of the philosophy. Through the cycles of observation and discussion, the group gained insight into their colleagues’ practice, and their *doings* in the classroom. The effect of a change in the *doings* of the practitioner researchers included the structured observation and discussion time which created a space for deeper conversation and strategizing of the teaching and assessing of the 5Cs. Through these deeper discussions there was the effect of a change in the *relatings* of the group. They developed trust, learned from each other, and established a team mentality which ultimately resulted in the shift in the culture and a valuing of each other as educators.

Darling-Hammond (2006) discusses the importance of context for both teachers and students. “The forms of knowledge teachers need to practice are fluid and highly contextualised; teachers must be able, as Schön

suggests, to reflect in action, framing problems and proposing and enacting alternative solutions after noting how their student's learning is progressing" (pp. 84-85). The NCR needed to reflect an accurate picture of what the class was doing together, in order for the teachers to articulate each individual student's growth, challenges and accomplishments. An accurate and detailed picture of the nature and purpose of class projects and the overall goals for both the class and individual students will better assist teachers in communicating to parents and families what happens in the class. Reporting in more detail on the 5Cs will also serve to value them, since, as Biesta (2009) notes, we value what we measure. By requiring documentation of the 5Cs explicitly the teachers will be made more aware of them in the planning stages of projects. The goal here is to give teachers, students and families the language with which to talk about the observation and growth in these 21st Century skills.

The research group members remarked on the importance of what we were doing; that together we were working on something valuable to the school and to a larger audience. Kincheloe et al. (2018) note the importance of teachers as researchers in recognizing the complexities of the educational processes that take place within specific sites of practice.

With empowered scholar teachers working in schools, things begin to change. In-service staff development no longer takes the form of "this is what the expert researchers found—now go implement it." Such staff development in the critical culture of schooling gives way to teachers who analyze and contemplate the power of each other's ideas. Thus, the new critical culture of school takes on the form of a real learning community, where knowledge is produced firsthand rather than developed on the bases of other research conducted with different students in different contexts (p. 428).

Seligman's (2011) work on happiness and well-being discusses how meaningful work contributes to flourishing. Together we were wrestling with challenging questions and ideas and could contribute to advancement in the field of education. The observations of each other was validation of our mission as teachers and built confidence in the strength of the program as a whole. The research group members

realised they seldom knew what was happening in each other's classes and these observations improved their overall knowledge of the school.

Summary

The products of the research, both the more concrete items like curricular documents and the more abstract changes in culture gave value to the research and inspired the practitioner researchers to engage with the research project. Making changes to their own *sayings*, *doings* and *relatings* through the cyclical processes of reflection, observation and action, opened up their practices to deeper levels of shared understanding and built a community of practice. An interesting question that these findings present is; can a process be a product of another process? Greenwood, Whyte and Harkavy (1993) support the view of participatory action research being both a process and a goal. It seems an almost circular statement, but I suggest it represents well the spinning and connected half circles of the diagram I created as a result of the findings (Figure 23). The products and the process of this project are indeed linked and dependent on each other. How individuals in the research group worked together affected what the total research group produced. The products or changes in practice of the group affected the process by which the research

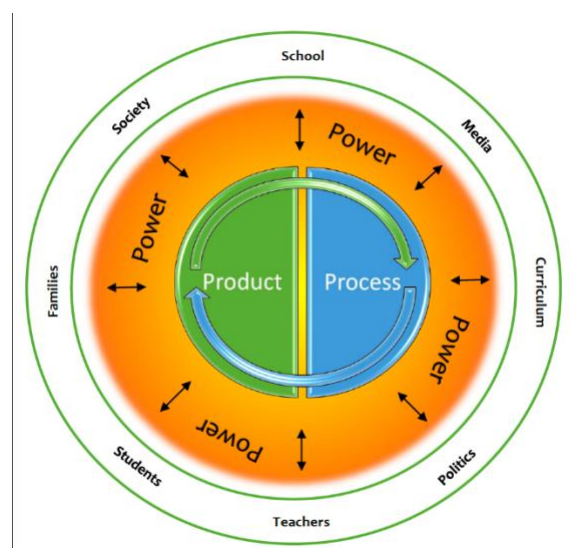


Figure 23: Visual representation of findings

worked toward their desired ends. It is at times messy, but also represents an ends/means alignment (Dewey, 1966).

A weakness of the study identified during the analysis of the data was a lack of information about the individual changes to practice of the practitioner researchers. Several things would have strengthened the findings. If the practitioner researchers had kept personal journals that documented the changes implemented as a result of the discussion and reflection sessions, a better trail of evidence would exist. Also, in reflection, some specific questions in the semi-structured interviews about the changes to their practice as a result of the research would give more evidence of the 'action' of the research. This leads into the following discussion of the process itself and what made this type of research engaging, successful and challenging to this group of practitioner researchers.

5.2 PROCESS

I will use three guiding questions for the discussion of the process.

- a) Why was this process of practitioner research seemingly successful to this group of researchers?
- b) What were the contextual factors of this site and study that made the recurring cycles of reflection and action successful?
- c) How was what we did participatory and democratic?

These questions also highlight **the third, fourth, and fifth things** that Kemmis, McTaggart and Nixon (2014) say that only participatory action research can do.

What made this process of practitioner research successful to this group of researchers? (develop forms of action and interaction)

There was meaningful dialogue between the researcher, the study and the participants. This dialogue, to be authentic, must involve a reciprocal interchange. The interchange includes the literature, the data gathered and the people who participated in the study. There are several questions I struggled with in looking at the transcripts and my journal reflections. These questions challenged me to justify my findings and allowed the themes to emerge or coalesce. Several other action research and practitioner research authors have delved into similar questions involving research *with* people rather than *on* people (Anderson et al., 2007; Cochran-Smith, Feiman-Nemser, & McIntyre, 2008; Cochran-Smith & Lytle, 2009; Guskey & Yoon, 2009; Heron & Reason, 2006; Shealy, 2019). According to Anderson, Herr and Nihlen (2007) action researchers “...study reality by acting within it and studying the effects of their actions” (p. 1). This recognition that what the researcher does has an effect on the people and place of the research is an embrace of something that is foreign to many more traditional research methodologies. One of the struggles, and also a strength, is that cycles of reflective research always lead to more questions, “...it generates knowledge out of ongoing problem solving in social settings” (Anderson et al., 2007, p. 1). How did we, as a research group, produce the changes we wanted? In looking closely at what we did as a research group, there were signposts along the way that other research groups could identify and follow. This discussion highlights what signalled to me, the research facilitator, and also the research group members that what we were doing was engaging, meaningful and potentially transformational. So, what were the elements that allowed this process to work and why did the research group members stay engaged in the research process? In figure 24, I have identified the three elements of Dialogue (blue), Structure (orange) and Authenticity (pink). The figure represents how these elements are woven together, and how that created a strength to the process, just as the strands of rope woven together created an

increase in strength. These are not steps, or discrete ideas, but more a woven fabric of process. I identify all three as necessary but not separable. Next I will describe these identified elements of process.

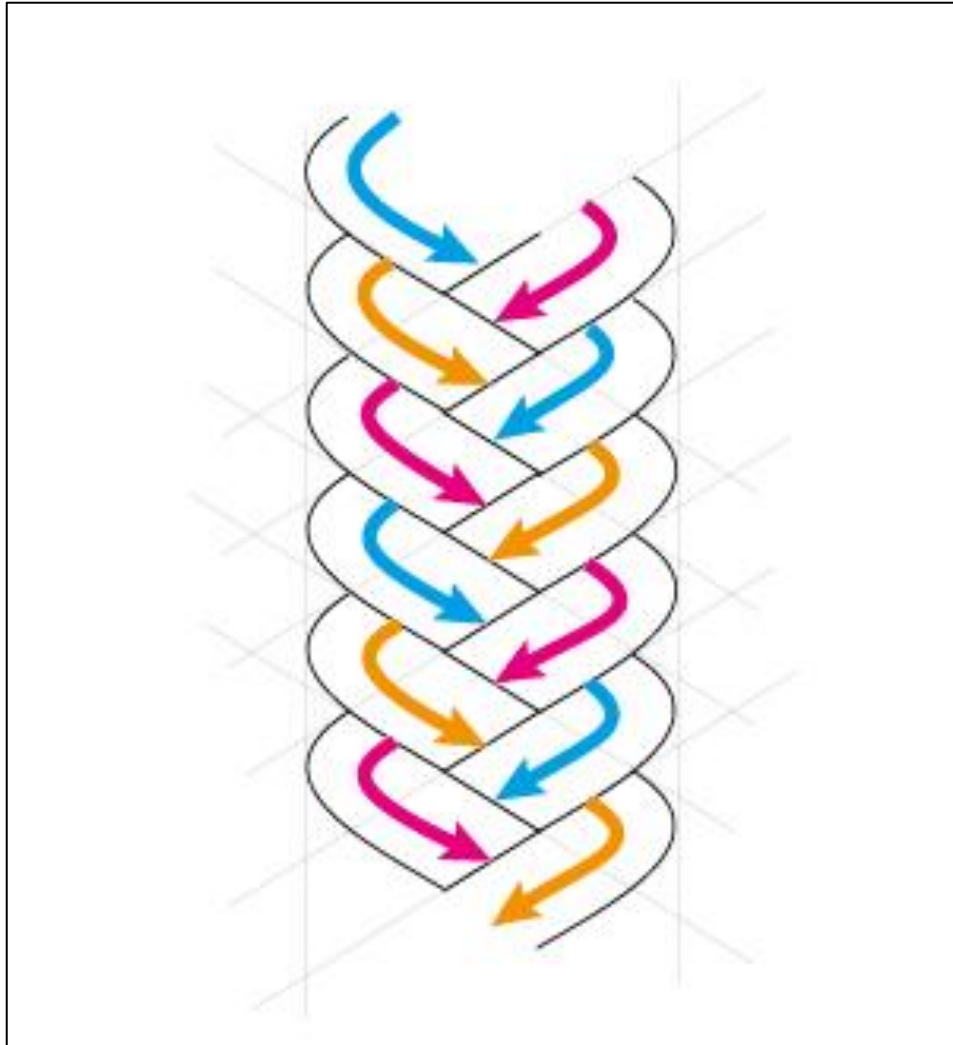


Figure 24: Relationship of Dialogue, Structure and Authenticity

Dialogue

Repeatedly during the research cycles, there were several times that discussion and open dialogue led the teachers to either change, modify or justify their stated beliefs about what was possible in their teaching

practice. Biesta (2016), Anderson et al. (2007), and Morales (2019) all support the importance of dialogue in effective teacher PLD and integral to participatory research. Morales (2019) describes the “communicative space” (p. 324) as a place that is created in participatory research that encourages increased participation and engagement. These intentional dialogue spaces are “often difficult to build into the school day” (Anderson et al., 2007, p. 61). The design of the school day often means teachers interactions with each other are in fleeting or passing moments, so an intentional space and time is necessary for individual educators to discuss matters of importance, not a meeting agenda item set by the administration.

Dialogue can be viewed as the idea of teaching as questioning and revealing rather than depositing information. This is the idea that Freire (2000) expanded on in *Pedagogy of the Oppressed*, that education could be viewed as “banking” (p. 72) or “problem posing” (p. 79). For Biesta (2016) dialogue is central to education or as he puts it “education is at heart a dialogical process”(p. 6) . The dialogue that the practitioner researchers participated in during the focus group meetings was identified through the findings as empowering and engaging to the group. The changes in the tone and quality of the conversations reflects the changes in the sayings, doings and relatings of the group as a result of the research process.

Dialogue also overlaps directly into the teaching of 21st Century skills (or life-skills) and the student/ teacher relationship. This is discussed in detail by Teo (2019) on the need for a shift toward a dialogic pedagogy of teaching. Which is “...an approach that seeks to facilitate students' construction of knowledge through the questioning, interrogation and negotiation of ideas and opinions in an intellectually rigorous, yet mutually respectful, manner” (p. 170). Again, the process in which the research group members were participating, through this research, was a model for the classroom; a view into how to implement the ‘21st Century’ curriculum with students. This process of utilizing dialogue demonstrates a strong ends/means alignment

of the research and progressive education. It is beneficial for a group of teachers to understand dialogic pedagogy if they want students to also practice it.

Herr and Anderson (2005b) discuss the importance of flexibility and responsiveness of action research, noting how messy it can appear. They highlight the importance of the researcher embracing the mess, and in fact entering into a dialogue with it to make clear connections between theory and practice. Herr and Anderson (2005b) refer to action research and the dissertation process as “designing the plane while flying it” (p. 70) which reflects the reality of adjusting teaching strategies while teaching. Implied in this analogy is the importance and danger of making adjustments to the mechanics of the plane while in flight. For example, if practitioner researchers make changes to their practice that interfere with student learning or add more stress to their day, then the consequences can result in new problems. What the findings revealed is the importance of the role of dialogue as changes are made.

Structure

The cyclical structure of CPAR gave the research group a framework and yet allowed enough flexibility to foster engagement in change. As a teacher, I have sat through numerous professional development sessions. These have ranged from boring to inspirational. The boring sessions are easily dismissed as lacking real connection to the teaching practice of the participants. Johnson (2019) discusses this very issue in his criticism of traditional professional development seminars and workshops arguing that these sessions are often not directly connected to the lived experiences of the audience of teachers. Johnson goes on to identify three requirements for effective professional development sessions: “... (i) be extended over multiple sessions, (ii) contain active learning to allow teachers to manipulate the ideas and enhance their assimilation of the information, and (iii) align the concepts presented with teachers’ current curriculum, goals, or teaching concerns” (p. 258). These three factors were in evidence throughout the transcripts and

individual interviews of our foray into practitioner research and may answer the question 'why the research group felt empowered by this research'. Darling-Hammond, Hyler, and Gardner (2017) also define the structure of PLD to be crucial to changes in teaching practice. "We define effective professional development as structured professional learning that results in changes in teacher practices and improvements in student learning outcomes" (p. v). On the flip side, inspirational professional development sessions can also lead to frustration if there is little or no integration into practice. The spirals of CPAR, plan, act, observe, reflect, and re-plan, provided a place for the inspirational to be applied or practiced and reviewed with authenticity.

Authenticity

The research group members noted a sense of empowerment through our research process which is reflected in Mitchel, Reilly and Logue's (2009) discussion on the benefits of collaborative practice. They note that collaborative practice increases both "self-efficacy and feelings of empowerment" in teachers (p. 346). The structure of CPAR cycles, in this study, provided the research group members an opportunity for focused dialogue about teaching practice, which Mitchel, Reilly and Logue noted is also a benefit of collaborative practice. A primary challenge of engaging in the process of practitioner research available time and adding additional work to the already overloaded schedule of teachers. There is a "...gap between the call for teachers to be researchers in their schools and classrooms and the lack of discussion about how one manages to perform two full-time jobs simultaneously: the job of a practitioner with that of a researcher" (Anderson et al., 2007, p. 11). Huberman (1983) referred to "the ecological 'press' within the classroom" (p. 479) as the busy and often overtaxed time of teachers. Teachers share resources with each other, and classroom improvements are often based on hearsay from other practitioners. "There is a good deal of recipe collecting and exchanging, enabling teachers to expand their instructional repertoire, their bag of tricks" (Huberman, 1983, p. 483). These tricks or ideas are communicated as intuitive or practical, but they are not necessarily researched or underpinned by a knowledge that is tested rigorously.

Our research developed in a two-fold excursion. As we worked together to develop a framework of language for the NCR what also emerged was a process for teacher PLD. The research group recognized that this process reflected their desired teaching practice goals. The way we were working together without sticking strictly to our stated objectives reflected the level of engagement they sought from their students in class. The open-ended and emergent nature of our process reflected the model the practitioner researchers strove for in the classroom. The ability to respond to moments and unique situations reflected Dewey's (1938) description of the purpose of education as not preparation for life, but life itself. To be a reflection of the world and circumstances responding *within* experiences rather than creating artificial experiences with predetermined outcomes. The journey the researchers travelled together encountered side road diversions with some long discussions that occasionally seemed irrelevant until a moment when murky waters cleared, and the group realised 'ah-ha!' What we have been talking about is the value of the NCR. Those discussions were essential in order for the group to see and to comprehend the depth of our synergistic understanding. It was the authenticity of true investigation that gave credence to the work engaged in together.

These interwoven elements of dialogue, structure and authenticity each held unique aspects of the process. They also provide evidence for **the third thing** that Kemmis, McTaggart, and Nixon (2014) identified that only participatory research can do:

3. Only participatory research creates the conditions for practitioners to participate in and develop the forms of action and interaction in which the practice is conducted (p. 5).

Those elements (dialogue, structure, and authenticity), demonstrate the ways and conditions for practitioners to participate and feel engaged in the process. At the conclusion of the focus group meetings, I as the research facilitator and doctoral student, was left wondering if the discussions and momentum

would carry through to actual and tangible change that would lead to rich data. The data revealed that the elements of dialogue, structure and authenticity provided the space, the context and the time that the research group needed to work together to produce a valid result. A challenge for a doctoral student with a dissertation to keep in mind, was to act as the research facilitator, and to let go and allow the group to be the experts, a relinquishing of power that will be highlighted in the discussion on power. As Biesta (2013) notes in his paper *Giving Teaching Back to Education: Responding to the Disappearance of the Teacher*, I ought to let the teachers teach and trust them to know what they are doing . This is also a reflection of the tension between ‘we’ the research group and ‘I’ the individual doctoral student.

What were the contextual factors of this site and study that made the recurring cycles of reflection and action successful? (to participate in and develop the communities of practice)

The contextual factors of this site that made the study successful for the research group members were; the alignment of the study to the site of practice, the deep conversations engaged in by the group and the engagement of the group in the process itself.

Alignment

The findings indicated several moments the awareness of how the actions of the research group were aligned with the expectations the practitioner researchers (teachers) had of their students and classes. In fact, one member reflected that she was observing her partners own use of the 5Cs as well as the lesson, and the student’s behaviour. In this way this study demonstrated **the fourth thing** that Kemmis, McTaggart, and Nixon (2014) identified that only participatory research can do:

4. Only participatory research creates the conditions for practitioners to participate in and develop the communities of practice through which the practice is conducted, both in the relationships between different participants in a particular site or setting of practice, and (in the case of a professional practice) in the relationships between

people who are collectively responsible for the practice (whether as members of a professional body or as professional educators or as researchers into the practice) (p. 5).

The team into which the research group had developed, behaved as a group that was collaborative in nature, reflecting the 5Cs that they were working on. In the cycles of reflection and action the group noted that the 5Cs were key elements for improvement of teaching and learning, while they were also the skills they were utilizing as a group in the research process. This alignment between what the group was changing in their classroom practice, and what they were doing themselves as a research group contributed to the positive feelings of the study. Kemmis and McTaggart (2005) note that researchers and practice are changed through participation in action research. This is a kind of communicative action that can interrupt to ask questions of understanding of what a group is *doing*, and it has application to other circumstances. In other words, the participants were able to stop and reflect on how their joint activity modelled what their classrooms could aspire to. Communicative action is a term defined by Habermas (1984) as a particular kind of communication that aims to reach intersubjective agreement, mutual understanding and consensus about what to do in a particular situation. Intersubjective agreement is aligned with constructivism as it recognizes that certain beliefs are specific to cultures and groups of people.

Dissecting the relationship between ends and means can lead to a spiraling discussion. “An end, or effect, soon becomes a means, or cause, for what follows. Human activity is continuous, and ‘nothing happens which is final in the sense that it is not part of any ongoing stream of events’” (Whitford, 2002, p. 337). Whitford (2002) references Dewey from his *Theory of Valuation*, in explaining the inextricable link between ends and means. The link between them is seen or judged through reflection on action or purpose. It may seem obvious that the way in which we work ought to match the thing toward which we strive, but it is easy to get derailed by positive sounding language. For instance, in this research, who would debate the

options of preparing students for their future, or teaching communication, collaboration, critical thinking and creativity. Words like these evoke universally positive feelings and a sense of purpose (S. Bourke & Meppem, 2000). Bourke and Meppem describe the term ‘community’ cautioning that while it may sound positive, it can be used to coerce people into conforming rather than expressing differences of opinion. In a similar vein, the inherently ‘good’ aspects of 21st Century skills in education may mask divergent agendas. The example frameworks described in Chapter 2 for measuring 21st Century skills are steeped in neo-liberal language that compels attention. The focus of the world of work, and the skills necessary for success in the future job market are the main focus of the shift that Trilling and Fadel (2009) identify as driving the current change in education.

One of education’s chief roles is to prepare future workers and citizens to deal with the challenges of their times. Knowledge work—the kind of work that most people will need in the coming decades—can be done anywhere by anyone who has the expertise, a cell phone, a laptop, and an Internet connection. But to have expert knowledge workers, every country needs an education system that produces them; therefore, education becomes the key to economic survival in the 21st Century (p. 6).

This neo-liberal idea can be contrasted against a progressive education view of the aim of education which was positioned by Dewey (1966). “For it assumed that the aim of education is to enable individuals to continue their education—or that the object and reward of learning is continued capacity for growth” (p. 61). For progressive educators, learning is for the sake of growth of the individual, and by extension, society. This aligns with the social constructivist view of growth and development, that recognizes that the role of the educator is not to dispense knowledge but to provide opportunities for students to build their own knowledge (Fosnot, 2013). In relation to ends and means, the language that is used to frame and assess 21st Century skills (ends) ought to match the ways in which those skills are taught and developed (means). And the language that is used directs the ways schools set out to measure and assess those skills. It strikes me that one must be careful to include the language of development in the means of assessment, and make sure that assessments are not just products or specific outcomes. “From the relativity of means and

ends Dewey draws the conclusion that the practice of setting up ideals without provisions for their fulfilment is futile or harmful” (E. T. Mitchell, 1945, p. 287). This refers back to the need for AfL (Assessment for Learning) presented previously in Chapter 2, and the role of assessment and measurement in 21st Century teaching. This interwoven relationship between ends and means is both meaningful and challenging.

With this perspective in mind, what educators do with students and the outcomes they expect from them should align with the language used in the discussion of 21st Century skills.

Rather than behaviors or skills as the goal of instruction, cognitive development and deep understanding are the foci; rather than stages being the result of maturation, they are understood as constructions of active learner reorganization. Rather than viewing learning as a linear process, it is understood to be complex and fundamentally nonlinear in nature (Fosnot, 2013, pp. 10-11).

Learning is messy and not necessarily divisible into discrete steps to be delivered to students. It happens in the relationships with each other, with the teacher, the student and with the material (or environment) that students interact with (Darling-Hammond & Adamson, 2014). In relation to this study and indeed what the research group members articulated on several occasions was that the behaviours the research group developed together were a reflection of what they were asking students to do in their classrooms. This was another example of the alignment of ends and means, this time with the research and the teaching practice of the research group members which made the research meaningful to the participants. The use of CPAR for the participants in this study provided a framework for designing lessons and projects that the students could engage with using 21st Century skills.

Deep conversations

These cycles of reflection and action also allowed the group to enter into deep conversations “...to show how things can and should be done better despite the constraints and exigencies of taken-for-granted ways of doing things” (Kemmis & McTaggart, 2005, p. 579). In this way the group conversations were able to address the public sphere, build community, and critically inquire as to how the group could improve their *sayings*, *doings* and *relatings*. This also reflects what Brookfield (2017) describes as reflective practice. Through deep conversations the teacher practitioners were able to delve into their particular circumstances and ask meaningful questions about the practices of each other.

Kemmis (2008) expands on the quality of communication in the intersubjective space which is part of Habermas’s (1987; 1984) communicative action. This is the way in which a group reaches consensus and an agreed upon understanding of their shared practice. “The intersubjective is not somehow ‘above’ individual understandings or self-understandings. The intersubjective exists in the communicative space in which speakers and hearers encounter one another — in speech and writing. The agreements they reach do not negate their individual subjectivity” (Kemmis, 2008, p. 129). This intersubjective space allows for disagreements, wandering conversations, and openness to difference in order to reach understanding. In our study the practitioners engaged in several of these seemingly wandering conversations. For example, the discussion on student self-assessment. Through this discussion the group was able to come to a new and broader understanding of what they meant by assessment. They appeared to disagree with each other at the outset of the conversation, and then realized that each practitioner was speaking from a different view or perspective, and that there was commonality in the seemingly divergent views. The findings of the process of this study reflected that the quality of the conversations of the research group increased through their focus group meetings and demonstrated a shift in their day-to-day conversations about practice.

Engagement

This alignment of the research and the school program, and the deep conversations that occurred throughout the cycles of reflection and action, led to greater engagement in the process. Kemmis and McTaggart (2005) detail the ways in which participatory research can empower a research group,

At its best it names a procession which people, groups, and states engage one another more authentically and with greater recognition and respect for difference in making decisions that they will regard as legitimate because they have participated in them openly and freely, more genuinely committed to mutual understanding, intersubjective agreement, and consensus about what to do (p. 594).

A challenge for this type of engagement is that divergent ideas which potentially are in conflict with organisational values may arise. “However, open and frank communication has its dangers...Deeply held resentments can flare up unexpectedly if discussions hit a raw nerve” (Cottrell & Parpart, 2006, p. 24). In research that relies on active participation and engagement there is a danger of a saboteur. Adebayo (2018) reviewed the “components of community-based organization engagement” (p. 474) and found that any lack of trust, training, or power imbalances will be detrimental to the research groups. Her review also noted that if these topics were not dealt with they can create “conflicts that are detrimental to engagement” (p. 480). The findings of this study indicate that the group developed trust through the process of discussion and observation of each other’s practice. That they sought out each other out with eagerness and a genuine commitment to improve what was done together. While the findings support this interpretation, alternatives are also possible including that participants felt unable to broach conversations which may be perceived as critical. It could therefore be argued that the process was not participatory, the next section will investigate how this research addressed democratic and participatory processes.

How was what we did participatory and democratic? (to transform the conduct and consequences of their practice)

This question links the concept of process and power together. Democratic participation in this research refers to sharing a voice and contributing to setting the direction of this study (Stringer, 2007). Participatory action research (PAR) is often used to assist marginalized or disenfranchised groups to identify and solve problems that affect them, it is a way removing power from the traditional researcher and distributing it to group participating in the research.

Using PAR, qualitative features of an individual's feelings, views, and patterns are revealed without control or manipulation from the researcher. The participant is active in making informed decisions throughout all aspects of the research process for the primary purpose of imparting social change; a specific action (or actions) is the ultimate goal (MacDonald, 2012, p. 34).

As the doctoral student conducting research at the school there was a force or power that I recognized and at times pushed back against. I was aware that the nature of my doctoral study held influence over my desired direction of the project. There was a point just after the first focus group meeting when I realized that I was not a participant in the true sense of the word. I was not teaching at that time, so my role was to facilitate the research practitioners in their discussions about 21st century skills and progressive education in reflection of their teaching. I needed to ask probing questions and support them through taking care of their classes while they observed each other's teaching.

In these circumstances the task of the practitioner researcher is to provide leadership and direction to other participants or stakeholders in the research process. I therefore speak throughout this book to those who coordinate or facilitate the research as research facilitators (Stringer, 2007, p. xvi).

Practitioner research reflects what Cochran-Smith and Lytle (2009) describe as "a powerful and affirmative notion that recognizes the collective intellectual capacity of practitioners to work in alliance with others to transform teaching, learning, leading, and schooling, in accordance with democratic principles and social

justice goals” (p. 118). Our study required the practitioner researchers to feel ownership of the questions and direction of the project. CPAR engages the practitioner researchers in “...critical self-reflection – individual and collective self-reflection that actively interrogates the conduct and consequences of participants’ practices, their understandings of their practices, and the conditions under which they practice, in order to discover whether their practices are, in fact, irrational, unsustainable or unjust” (Kemmis et al., 2014, pp. 6, italics in the original). This process creates a powerful connection between participants and their practice, in fact, giving them power to name what is working and more importantly *not* working for them in their site of practice. In this way the group reflected **the fifth thing** that Kemmis, McTaggart and Nixon (2014) identified that only participatory research can do:

5. Only participatory research creates the conditions for practitioners, individually and collectively, to transform the conduct and consequences of their practice to meet the needs of changing times and circumstances by confronting and overcoming three kinds of *untoward consequences* of their practice, namely, when their practices are
 - a. *irrational* because the way participants *understand* the conduct and consequences of their practices are unreasonable, incomprehensible, incoherent, or contradictory, or more generally because the practice unreasonably limits the individual and collective *self-expression* of the people involved and affected by the practice,
 - b. *unsustainable* because the way the participants *conduct* their practices are ineffective, unproductive, or non-renewable either immediately or in the long term, or more generally because the practice unreasonably limits the individual and collective *self-development* of those involved and affected, or
 - c. *unjust* because the way participants *relate* to one another in the practice, and to others affected by their practice, serves the interests of some at the expense of others, or causes unreasonable conflict or suffering among them, or more generally because the practice unreasonably limits the individual and collective *self-determination* of those involved and affected (p. 5).

Throughout the course of the study the group often grappled with the ways and programs of the school that at times interfered with the mission or objectives of progressive education. The pull toward standardization or the neo-liberal language that would occasionally drift into conversations reflected the

tension that existed between what the school states that it does and what parents and students want to get out of their experience with the school. This repeated process of reflection, action and observation created the physical space and time for the group to investigate their practices for *untoward consequences*. The nature of the participatory research is inclusive and democratic and therefore creates the circumstances for critical reflection (Anderson, 2017).

Other researchers have highlighted the ways that participatory action research is democratic and values the voice of practitioners (Anderson, 2017; Greenwood et al., 1993; Janes, 2015; Rector - Aranda, 2019; Rowell, 2019). These practitioner researchers were able to build and contribute knowledge to the practice of teaching, and by participating in research contribute to the publishing of new knowledge.

PAR represents a new epistemology of school reform to the extent that it legitimates the knowledge of students, teachers, and communities. A program of PAR research in schools, for instance, would be based, less on the perceived gaps in the academic literature, than on problems and professional dilemmas that emerge from practice (Anderson, 2017, p. 441).

Research that is generated by teachers' perceptions rather than perceived gaps identified through standardized testing helps to push back against the neo-liberal push toward quality control of teaching and learning. By engaging this group of practitioner researchers in generating ideas and strategies for improving our *sayings, doings, and relatings* we were adding to the body of knowledge produced in a democratic form. Janes (2015) points out that not all participatory research is equal and that a reflection on the distribution of power between the academic and the practitioners is necessary. The findings of this study did reveal a tension between my stated objectives as the doctoral student and the research groups occasional meandering discussions. This research project was our form of radical practice, of seeing teachers as not merely technicians but demonstrating teaching as a craft built on wise choices in response to individual circumstances. This was seen in our project with the practitioners' dynamic engagement with

the cultural circumstances our study occurred. The group made connections between social issues occurring in the world, their documented curriculum and their desire to bridge the gap between the two.

The current knowledge production and dissemination system represents a barrier to a more diverse view of knowledge mobilization and a more open and integrated system in which traditional perspectives on scholarly work by academics might be balanced with appreciation of the importance of practitioner research in the trenches of daily educational practices (Rowell, 2019, p. 123).

The group engaged in the production of knowledge through a process of reflection on their actions in the classroom and discussion together.

The general concept of authentic participation as defined here is rooted in cultural traditions of the common people and in their real history (not the elitist version), which are resplendent with feelings and attitudes of an altruistic, cooperative and communal nature and which are genuinely democratic (Fals-Borda & Rahman, 1991, p. 5).

This practitioner research felt successful because the process authentically engaged the participants in cooperative and democratic action.

Summary

The three main questions the process of this study revealed were; why was this process of practitioner research seemingly successful to this group of researchers?, what were the contextual factors of this site and study that made the recurring cycles of reflection and action successful?, and how was what we did participatory and democratic? The data indicated the success of the study relied on meaningful dialogue between the researcher, the study and the participants. This dialogue, to be authentic, must involve a reciprocal interchange. These main elements were identified as dialogue, structure and authenticity and were woven together in the process. The contextual factors of this site that made the study successful for the research group members were; the alignment of the study to the site of practice, the deep conversations engaged in by the group and the engagement of the group in the process itself. Action research and more specifically practitioner research relies on participatory and democratic processes. Artificial or overtly top-down processes often falter or are not sustained because the changes are not

genuine reflections of the group who actually will put those changes into action or practice. This democratic process of the research dovetails into the discussion on power and its influences and forces upon the study.

5.3 POWER

Underlying this entire study is the question of power. Education and power are interwoven in overt and covert ways and it is naïve to pretend you can remove power from the teaching process. Power is central. Whatever one's view of education and how it ought to be structured, whether the teaching is for a banking system or for problem posing, as discussed in detail by Freire (2000), power is the eternal debate concerning what should happen in classrooms, how and for whom. In the introduction to *The Politics in Education* Giroux gives a detailed summary of Freire's (1985) definition of power.

Power is viewed as both a negative and positive force; its character is dialectical and its mode of operation is always more than simply repressive. For Freire, power works both on and through people. On the one hand, this means that domination is never so complete that power is experienced exclusively as a negative force. On the other hand, it means that power is at the basis of all forms of behavior in which people resist, struggle, and fight for their image of a better world. In a general sense, Freire's theory of power and his demonstration of its dialectical character serve the important function of broadening the terrain on which it operates. Power, in this instance, is not exhausted in those public and private spheres where governments, ruling classes, and other dominant groups operate. It is more ubiquitous and is expressed in a range of oppositional public spaces and spheres that traditionally have been characterized by the absence of power and thus any form of resistance (Kindle Locations 153-159).

This description of power represents to me the unresolvable tension of power. It something to be seen and recognized but not resolved or overcome. As a researcher participating in the study that I was conducting, I attempted to reveal my own power and worked actively to empower the other participants. The idea of power was tricky to code, as it wove its way into other categories and was often hidden below the surface. Jamison (2019) refers to the challenges of "clean up" (Jamison, 2019) during the open coding process, and how you can have an abundance of seemingly distinct categories that are actually related. Often in the coding process I would code power and process, or power and product together. On reflection, it became

clear that the linkage of those elements is part of the complexity of change, that in order to be successful one must *buy in* to the change and also be in the position to *act* on the change.

This discussion that follows will focus on the tensions and relationships as they relate to power. Tensions exist between control and freedom, such as the facilitator verses the research group, the curriculum verses emergent learning, and structured PLD verses responsive or open PLD. These tensions are viewed as a continuum rather than an either/or dichotomy (Greenwood et al., 1993). The relationships of power will look closely into the people as individuals and groups who had some influence on the study and how those relationships may have affected the outcomes, or the feelings surrounding the study. In this discussion I highlight 'the power of' practitioner research to affect behaviour, collaboration, and engagement. I define power as the right or means to control oneself or others, and I recognize that both people and things can hold power or have authority, control, influence, or voice. This section is broken into the:

- a) tensions between control and freedom,
- b) empowerment, agency and relationships, and
- c) the influence of power on and of the people connected to this study.

The tension between control and freedom

If viewed as a spectrum, hierarchy can range from tight control to absolute freedom. Practitioner research aims to flatten an organizational structure and yield more power to the teachers who participate in the research (Stringer, 2007). "We endure hierarchical and authoritarian modes of organization and control despite the sense of frustration, powerlessness, and stress frequently felt by practitioners, client groups, students, or others affected by underlying issues within the situation" (Stringer, 2007, p. 22). As the research facilitator, I noticed the occasions that I had to restrain myself from leading the discussion and trying to steer the direction of the study. It is reflected in my journal that I was aware of this, and at times

worried that we were not actually going anywhere when I released control to the group. “The teacher meetings have a tendency to wander and I can feel myself getting worried about time. I want to cut people off to get to the point, so we can move on” (personal journal, 17th March 2018). This highlights the tension between the research facilitator’s tight control and the pull of the members of the research group towards greater levels of freedom. Some of this tension may have led to improved engagement in the process. Some sense of tension and conflict can be motivational, since it may reveal an obstacle to overcome or expose discrepancies in belief. “This “bottom-up” or grassroots orientation uses stakeholding groups as the primary focus of attention and the source of decision making. It is an approach that requires research facilitators to work in close collaboration with stakeholders and to formulate “flat” organizational structures that put decision-making power in stakeholders’ hands” (Stringer, 2007, p. 25). The tension between my desire to lead the research verses the nature of practitioner research ebbed and flowed between myself as the research facilitator and the teacher practitioners of the study. This is not something to be avoided, rather it is important to recognize and reflect on its impact on the products and process of the study.

Empowerment, agency and relationships

The next three sections will discuss the influences of empowerment, agency and relationships on the power of the project, the people and their connections. There was power that the process itself built as the group felt engaged and inspired by participating and building a community of practice. “The heart of community-based action research is not the techniques and procedures that guide action but the sense of unity that holds people to a collective vision of their world and inspires them to work together for the common good” (Stringer, 2007, p. 132). This ‘sense of unity’ is the power that I am referring to in this discussion. The practitioner researchers built this shared practice and the feelings they experienced as a result contributed to their sense of engagement and commitment to the project. This is what Arendt (1998) refers to when “...power springs up between men when they act together and vanishes the moment they disperse”

("Chapter 28" para 22). In order to maintain this collegiality between practitioners there was a need to ensure the circumstances be structurally secured. "Unless research participants take systematic steps to incorporate changed procedures into the ongoing life of the organization, changes are likely to be short-lived and to have little impact" (Stringer, 2007, p. 145). Some of these continued practices and support will be discussed in more detail in the longitudinal reflection that follows this section.

We see the constructivist worldview manifest in phenomenological studies, in which individuals describe their experiences (Moustakas, 1994), and in the grounded theory perspective of Charmaz (2014), in which she grounds her theoretical orientation in the views or perspectives of individuals (Creswell & Poth, 2018, p. 33).

The use of constructivist grounded theory with the critical participatory action research allowed for this group of practitioners to expand their *sayings*, *doings*, and *relatings* and gave the data richness and authenticity. This paper presents the views and perspectives of the practitioner researchers who participated in the study. Through my investigation of the transcripts, recordings and personal reflections I have attempted to give voice to their perspectives and experiences. It is, however, still *my* interpretation of what the group did together. "Completely realized participatory action research processes are rare, not only because participatory action research researchers are few in number, but because many research situations do not permit full-scale participatory action research to emerge" (Greenwood et al., 1993, p. 188). There is power by participating in research itself. Herr and Anderson (2005b) note that action research has consequences because it "...has a tendency to spill over into areas one had not expected to study" (p. 66).

Empowerment

The process of practitioner research is similar to the concept of learning-as-empowerment, and not passive acceptance (Cochran-Smith & Lytle, 2009). They identify teachers as the "linchpin of educational reform" and note that teachers are also learners (p. 1). This concept is in ideological alignment with Dewey (1938) and his view of the teacher as a member of the community of learners, "that education is essentially a

social process” and it is “absurd to exclude teacher from membership in the group” (p. 58). The research group developed through the meeting cycles into a cohesive group and through the tone and energy of the meetings it became evident that what we were doing together was as important as the products we were working toward.

Process is as important as the 'end product' for most activists. Because they see social transformation as beginning with individuals, community activists believe that properly conducted research can be a tool for personal growth and empowerment for the individuals who are involved in the research process.... Empowerment requires all partners' skills and experiences to be valued equally and any concerns carefully processed (Cottrell & Parpart, 2006)

This is the theory of progressive education, upon which this particular school is grounded. The alignment of the social constructivist philosophy of the school’s curriculum with the view of how the school can assist the teachers with their own learning and development unifies program and implementation, or theory and practice. In other words, the school can treat the teachers in the same educational manner that it treats the students. This alignment allows the teachers to practice what they preach and model the experiential learning process, rather than teach it. Teachers can become co-learners with students. And this process of practitioner research may give teachers a model of how and where to start improving engagement in their classrooms. Teo (2019) discusses this idea in his explanation of dialogic teaching which he argues as a means to address teaching skills such as communication, collaboration, and critical thinking.

Beyond improving engagement and participation, dialogic teaching ultimately improves students’ ability to think and decide for themselves, which is critical in the 21st Century where widespread proliferation of information and knowledge means that there is an ever increasing need for learner to sift through layers of (mis/dis)information in order to uncover what is of value and relevance (p. 175).

This term ‘dialogic teaching’ is a useful description of what teachers at Open Horizons have been doing for over 40 years. The fact that research is being conducted now (again) on teaching and assessing 21st Century skills means that the experiences of this small independent school have much to offer the world of theory.

This firm basis of 40 years of progressive education at Open Horizons school adds to the formal study of why and how to document and report the ongoing concept of practitioner research, and it has inspired and motivated this researcher. Inspired the writer to carry the message of new, better teaching skills to the wider community of educators, through professional writing, presentation at conferences and authoring a “Layman’s Handbook” of alternative teaching options. This is an example of the empowerment of the research on the researcher.

Cochran-Smith and Lytle (2009) point out that much is lost in education reform because some of those most excellent practitioners are teachers who do not place high value on publication and dissemination, but merely on better practice. Thus, their work is only beneficial to their close community. It therefore makes sense that connecting teachers to researchers or empowering teachers in the research process may lead to more robust resources for shared practice, although it should be added that this is not always the case. Teachers and researchers often have different agendas or pressures and at times their desired outcomes can differ causing tensions to arise (Erickson & Young, 2011). “Disheartened, we could see that the products [from the teachers] did not match the quality we had hoped for” (p. 96). If the teachers are not empowered by the research or feel no control over the use and outcome they may disengage once tensions arise or other pressures of teaching surface. In the example from Erikson and Young (2011), the teachers seemed resentful of the changes the researcher had made to their contributions, and had different perceptions of the usefulness of the products created. This can also be a reflection of a lack of alignment between ends and means, or a lack of feelings of agency on the part of the teachers participating in research.

Agency

Practitioner research is subversive and emancipatory by its very nature. This subversiveness can be used to directly confront the hierarchy and hegemony often associated with educational structures. As noted in the methodology, “By recognizing first-hand knowledge from first-hand experience, both action learning and action research support egalitarian and democratic values. There are “emancipatory” versions of both action research and action learning” (Bourner & Brook, 2019). In addition as Cochran-Smith and Lytle (2009) point out practitioner research has its interests centrally located in improving teaching and learning whilst other teacher learning communities with top down hierarchical structures, are focused on improving student outcomes on assessment tools.

Action research is best done in collaboration with others who have a stake in the problem under investigation. Collaboration for insiders involves outsiders with relevant skills or resources (e.g., dissertation committees, methodology consultants), though most agree that the perceived need for change should come from within the setting (Herr & Anderson, 2005b, p. 5).

The distinction is important if not apparent at first glance. One view places importance on expanding the understanding of how learning happens and the other view on increasing scores on testing outcomes. From their point of view Cochran-Smith and Lytle (2009) highlight how practitioner research improves teacher agency by treating them as experts in the field with first-hand knowledge of the effects of decisions made by politicians and school boards. They go on to highlight how the role of practitioner researcher or “... inquiry as stance is a counterhegemonic notion in the sense that it clashes with many prevailing ideas about teaching, learning, learners, diversity, knowledge, practice, expertise, evidence, school organization, and educational purposes” (p. 124). An interesting circular discussion arises; can a school which is counterhegemonic in structure provide a structure of professional development that properly reflects its core principles without undoing itself in the process? This relates to the earlier discussion in the methodology section about the concept of bricolage and what Kincheloe et al. (2018) “...maintained that in the critical hermeneutical dimension of the bricolage, the act of understanding power and its effects is

merely one part—albeit an inseparable part—of counterhegemonic action” (p. 435). Can teachers in this school, counter the counterhegemony?

In the interviews when several of the practitioner researchers expressed concerns that the changes created through the study may not continue, it reflected their worries about agency. This idea of my (or any particular individual’s) absence is concerning, and a potential challenge to the study. As much as I might try to remove the influence or power of the researcher, I am still the one who got the ball rolling. The real question revolves around whether or not the ball will continue to roll. This element concerned me on two levels. First as a researcher, I was concerned that my influence was too strong and that there may be a vacuum after I left. What appeared to be agency on the part of the practitioner researcher may be fragile. Practitioner research from a grounded theory approach “leave[s] the researcher only an expert in being a grounded theorist, at least in the field, but they get to be general experts when they return to the university and engage dissemination of their fieldwork” (David, 2002, p. 13). From this perspective I could join the practitioner group as a member and leave it to the university researcher to reflect and dive into the data after gathering it. Secondly, my concern was that, on completion of the research process, I was leaving the school to fend for itself without my guiding hand, and without being able to control what was happening. “I am fearful that when the research is over and I am gone that things would revert to normal” (personal journal, 3rd April 2018). I am not sure what this idea of ‘normal’ implies, but it sounds as if I thought myself central to the continuation of the process, and therefore doubted the agency of the practitioner researchers. Active engagement of the participants is essential for practitioner research to be meaningful and contribute to the sustainability of projects after the research has concluded, “...enabling people to maintain the momentum of their activity over extended periods of time” (Stringer, 2007, p. 21). Anderson (2017) expands on the emancipatory nature of Participatory Action Research, noting its ability to confront the traditional “...top-down reform delivery system” (p. 442). Thus, recognizing the ability of practitioner

researchers to create circumstances to solve problems within their own practices and use academic research in addition.

This study did help give language and a plan for improved communication of the ‘how’ and ‘what’ is done at this particular school that is different from and outside the mainstream. These changes are a form of agency for the school and teachers who believe there are different answers to the way in which education can be delivered. As Bourner and Brook (2019) point out, action research resonates with the “experiential learning cycle, which can be helpful in explaining the rationale and practices of both action learning and action research” (p. 195). The insider-outsider perspective that I brought as a former teacher at the school and current doctoral student produced the atmosphere of collaboration needed to make practical changes. “Change is an intended outcome of action research: not the revolutionary changes envisioned by radical social theorists or political activists, but more subtle transformations brought about by the development of new programs or modifications to existing procedures” (Stringer, 2007, p. 208). Our changes may have been modest in comparison to some larger social transformations, but the changes the research group made were significant to the group and the school. The growth in understanding of their *sayings*, *doings* and *relatings* allowed for ownership of their individual practices and developed their feelings of agency as teachers.

Relationships

This project worked because it actively engaged the research group as full contributors to the research process and rejected the traditional roles of status and power that institutional hierarchies often enforce. The practitioner researchers noted that through working together on this project, deeper relationships

were formed. The opening up of their practice to each other helped to level the power dynamics and build what Stringer (2007) refers to as collegial relationships.

At the base of a productive set of relationships is people's ability to feel that their ideas and agendas are acknowledged and that they can make worthwhile contributions to the common enterprise. This, ultimately, is at the core of the processes of a democratic society (Stringer, 2007, p. 29).

This building and strengthening of relationships are what Rector-Aranda refers to as action research's ability to recognize the complexity of research involving people. People who are complicated, who bring their own knowledge and histories to any project.

Additionally, by studying methods that invited multiple stakeholders into the knowledge production process, I began to understand the role of power in research. I saw how both research and formal education could actually harm certain individuals if it failed to account for the historical, political, and social inequities they had experienced and continued to experience (Rector-Aranda, 2019, p. 492).

In our study, the practitioners demonstrated learning from each other and built their capacities as professionals. The building of relationships between the practitioners allowed for a sharing of knowledge that was at time both practical and academic. Through the study some of the practitioners seemed more willing to engage with the literature on progressive education once trust was established within the group. This was an identified power of practitioner research in this study, it facilitated the growth and development of the relationships that existed in this group of researchers.

The influence of power *on* and *of* the people connected to the study

Power is complex and messy. It can be viewed from many different perspectives and its influence could certainly be its own dissertation. Power can be personal, interpersonal and contextual. People and circumstances have power. Rules and organizations have power, and it can be both internal and external. As mentioned earlier, this study relies on Freire's (1985) definition of power as force that is neither positive

nor negative and "...works both on and through people" (kindle location 153). Numerous questions arise deserving attention; who holds power? or how does power shape action or inaction? This section reflects upon the people related to this study, the practitioner researchers and the members of the school community and their influence and power on the study, or the power of the study upon them.

Research facilitator

As an educator with more than 11 years of experience at the school I had a wealth of historical knowledge to draw from. It meant that the people involved in the study perceived me as a credible source and believed the statements I made about the school's goals and past successes, and that my influence appeared to be trusted as being well-intentioned. I also knew some of the struggles and hurdles the school faced, having been both a former teacher and administrator at the school.

The position of the researcher changes from one of controller, advocate, or activist to one of facilitator. The researcher's role is not to push particular agendas but to neutralize power differentials in the setting so that the interests of the powerful do not take precedence over those of other participants (Stringer, 2007, p. 213).

I was not a total insider because of my experience outside the school and having absented myself for some of the most recent changes. This study relies on the works of other action researchers such as Kemmis, McTaggart, and Nixon (2014), Bradbury and Reason (2008), Stringer (2007), Cochran-Smith and Lytle (2009), and Herr and Anderson (2005b). As a researcher returning to the school to conduct this study according to David (2002) "[t]he researcher does not simply engage, they engage to facilitate the goals of the researched" (p. 14). In this way my role as instigator of the research and facilitator of the group remains true to methods of practitioner research. "Leadership, in this instance, is defined according to its function of facilitating organizational and operational processes, rather than defining and controlling them" (Stringer, 2007, p. 34). This project revealed the role of research facilitator to be complex and important to the continuation and sustainability of the research. This idea is supported by Kemmis and McTaggart (2005) in their discussion of the role of the facilitator. It is naïve to think that a facilitator could be neutral or that

they do not bring knowledge and sometimes expertise to the project. In fact, "...outside researchers have often been indispensable advocates and *animateurs* of change not just technical advisers" (p. 570, italics in the original). Although I continually resisted my perceived power in the process, the data revealed that this power was meaningful and at times helpful to the research group. Power in this sense was the force that gave the group a sense of direction and helped maintain momentum. This raises some interesting questions about the role of leadership in participatory practices.

Practitioner researchers

Anderson, Herr and Nihlen (2007) state, "... action research is best done in collaboration with others who have a stake in the problem under investigation, such as other educational practitioners in the setting, students, parents, or other members of the community" (p. 3). For this research to be meaningful and transferable it must secure the willing participation of the teacher practitioners. If the teachers felt the study held value for their daily experiences the chances improved the likelihood of active participation and contributions to meaningful content. "In other words ...empowerment begins with a group of educational practitioners who view themselves not merely as consumers of someone else's knowledge but as knowledge creators in their own right" (Anderson et al., 2007, p. 7). In many ways as a doctoral student I was relying on the research group members to take seriously my research and join me on a journey that may require more work on their part. In allowing each other into their classrooms the research group members were opening up themselves and their practice to their colleagues. It meant they must trust each other and open themselves to evaluation that was not currently stipulated in their contracts. The research group members also had an opportunity here to grasp more power and to own their role in shaping the direction of the school. Kemmis, McTaggart and Nixon (2014) note the similarity between practitioner researchers and Dewey's' concept of progressive education when they ask; "Do the researchers and practitioners involved see research or action research as an educative process like other educational processes, for example? Or do they see education as, in some sense, a process of research—as John Dewey

did?” (pp. 24-25). This connection between the research study and the teaching philosophy of the school was a frequent discussion in the focus group meetings and the study suggests the alignment between the two strengthened the outcomes of the study.

Administration

Power from the ‘top’ of the school, the administration, supported this research but that is not without drawbacks. “PAR seeks to avoid the pitfalls of the ‘top down technology transfer model’ of academic intervention, policy formation and policy implementation” (David, 2002, p. 12). An expectation from the Head of School could exert a ‘top down’ pressure for a good outcome and was a potential risk for the teachers who chose to participate in the study. Had the research produced a detrimental effect on the culture of the school, or the attitudes of the teachers, I could walk away. The school and the teaching staff would have to deal with those consequences. But because of my history with the school the administration had trust in my judgement, abilities and good intentions to manage and respond to any conflict that arose. This is very challenging for CPAR to negotiate the space in a hierarchical society. This CPAR would not have been possible without the mandate from the ‘top’ which is ironic given the democratic nature of the process. The administration in this study granted power over to the research group, but it was still the administration’s power to grant, and potentially take away. What this study demonstrates is that administrations can be powerful and empowering if they create the communicative spaces for what Habermas (1984, 1987, (1991)) refers to as public sphere’s for dialogue and open discussion.

Parents and students

Although parents were not directly involved in this research their influence and power was noted throughout the study. As a small independent school that relies on tuition for operations the view and perception of the school by parents can shift or unsettle any given school year. “Most current proposals for school reform seek to shift power to parents, thereby bringing new actors into the educational process” (Schneider, Marschall, Teske, & Roch, 1998, p. 489). These authors note school reform was not new in the

1990s, and it continues into the current decade. School choice allows for parents to “shop around” (p. 490) for quality school programs. This shopping around can create problems as parents see school as delivering a product, which reflects the neo-liberal language articulated in the literature review. The repeated questions from parents about the value of an Open Horizons education became a driving force in the design of the research and prompted specific research topics including better documentation of the program and articulating the ‘why’ regarding what the school does. This does feel like a neo-liberal influence on a theoretically progressive institution. It raises questions of; *How ought a progressive school respond to parents’ neo-liberal questions?*

The exclusion of students from the practitioner research process could be considered a significant weakness as many argue that student voice is critical in education reform of all types (R. Bourke & Loveridge, 2016; Brookfield & Preskill, 2005; Hogan & Gopinathan, 2008; Mitra, 2004) and even pre-school age (Pyle & Luce-Kapler, 2014; C. Robinson, 2011). However, the reflexivity of the practitioners in considering student perspectives helped to avoid at least some of these weaknesses. The findings of this research argue that a more robust and intentional PLD plan will create time and space together for practitioner researchers. This time and space can be used for both dialogue and curriculum development which will aid in the consistency of the program and the ability of the teachers to answer the questions and concerns of parents and students.

Summary of power

The complexity of power may influence other researchers to avoid asking or investigating the relationship between people, and how those relationships affect student learning (Giroux, 2003). Like the diagram created at the beginning of the discussion (Fig 22) the boundaries of power are fuzzy and at times hard to pin down or identify. “While differing approaches to action research may have differing understandings of the location of power, they all share an epistemological critique about the ways in which power is embedded and reinforced in the dominant (i.e. positivist) knowledge production system” (Gaventa &

Cornwall, 2008, p. 178). As the research facilitator I might ask the research group members how they felt about an issue, but it was hard to know or to document how the relationships between people effected the power dynamics of the study. “Most damningly, these critics suggest that rather than facilitating the empowerment of participants, participatory approaches actually reinforce existing hierarchical power relations, reproducing the very inequalities they seek to challenge” (Kindon, Pain, & Kesby, 2008, p. 93). Through this these authors suggest that those whose voices are strongest will potentially dominate in participatory research. In our study there were several seasoned teachers, and myself who had long institutional history with the school. Our knowledge had the potential to take precedence over some less experienced members of the group. In this study I attempted to look at situations and describe the potential influence of power dynamics and highlight areas of potential conflict or imbalance. This is what Kindon, Pain and Kesby recommend, “...to try and maintain a self-reflexive appreciation that rather than being a privileged, power-free mode of research, participatory approaches, and PAR, are situated, limited works in progress that are improvable, contestable, and ultimately, replaceable”(p. 93). As the research facilitator I felt it necessary to identify the moments and people where the effects of power could be seen and try to understand how those moments and people might affect our project and the process of practitioner research.

A fundamental assumption is that the procedures and processes of research work to ensure that power differentials do not undermine the need to clearly hear the voice of less powerful groups. The theory, in this case, is a theory of method and provides clarity and understanding about the way participants enact processes of inquiry in order to achieve the practical and effective outcomes we desire (Stringer, 2007, p. 189).

Stringer is speaking directly to what I as the research facilitator was striving toward. My goal was to assist this group of practitioner researchers to improve the quality of their practice and to enhance and support the longevity of a program I believed reflected a progressive education model. As a former teacher at the school it was my experience that teachers’ voices were often unheard and other groups often led the

direction of the school program; groups whose experience in the classroom was less practical and more theoretical. Stringer (2007) identifies this as a strength and 'power' of action research.

5.4 A LONGITUDINAL REFLECTION

It is now eighteen months since this practitioner research project was conducted at the school and I have returned there as the new Head of School, where I have been for the past year. This places me in new position from which to view the fruits of this participatory research project. In between the research and my return, the teachers had an entire school year without my interference. One of the teachers, who had been a research group member, served as the interim head during this time. It is now possible to observe and reflect on what happened since the cycles of CPAR concluded. During this reflection, I refer at times to the teachers rather than members of the research group when talking about the present moment, because the research has concluded.

One of the challenges of PLD and practitioner research can be a lack of follow-up, or reflection after implementation (Dana & Yendol-Hoppey, 2019; Darling-Hammond, 2006; Rowell, 2019). Professional development workshops or research projects happen and then the school, teachers or researchers move on to the next semester or school year without close scrutiny as to how effective the work was, and what elements were integrated into the culture of the school. Many educational reform initiatives focus on effective professional development and comment on the non-enduring nature of short term or one-shot workshops or sessions (Darling-Hammond, Hyler, & Gardner, 2017; Garet, Porter, Desimone, Birman, & Yoon, 2001; Hargreaves & Fullan, 2012). My return to the place of the research study allows me to view the continuity of the work started, and to assess the longevity of the products and processes initiated by the research group. Now that I have returned as the Head of School, how can I facilitate the teachers to engage in meaningful dialogue without the overt influence of the administration instructing them how to do it?

In this reflection my goal is to spotlight what has continued successfully and what has fallen by the wayside or been a struggle to execute. I also examined which strategies can be put in place to continue to support the teachers in their cycles of reflection and action. Any continual process needs realignment and support, just as Vygotsky (1978) articulated the ZPD for students, it seems the same kind of scaffolding is necessary for teachers. By working together to reflect on a process, teachers are able to share their learning and support each other with both encouragement and classroom modification ideas. Supporting teachers through the change process is an important element in the likelihood of that change sticking, or being successful (Ertmer & Simons, 2005). Now that my role has changed from research participant to Head of School what is my role in the new process? This reflection will look at the identified themes of Product, Process and Power with a view into how they held up over the eighteen months since the study concluded.

Products

Have the products held up over time? The NCRs have been updated again since the changes were introduced during the study. The integration of the 5Cs into the documentation of projects and class activities has been expanded into a narrative format. Each teacher has defined the 5Cs based on the developmental level of their students. These narrative explanations have proved to be beneficial in communicating the school program to families. One of the research participants shared how the narrative description of the integration of the 5Cs and PBL that they created for the NCR helped in their conference meetings with families. It created a clear description of the design of the room and the focus on socio-emotional development in a way that parents understood (personal communication, November 4th, 2019). The detail and length of all the NCR this school year was expanded, creating a valuable resource for articulation of the school program, and examples for how to document integrated and complex skills and individual student development in the area of 21st Century skills. At the Upper School (7th-12th) the writing of the NCR has shifted to include the students. A desire expressed by in the research group members during

the focus group meetings. Over a weeklong period, students completed a written response to reflective questions about the semester including content and process questions. They also met individually with the teachers for a semi-structured interview, which was recorded and summarized by the teachers. See Appendix D for the written and interview questions. In this area the CPAR products have shown themselves to have lasted longer than the cycle of the CPAR project and be more than ephemeral.

The current teachers report that PBL (Project Based Learning) has improved as they lean into trusting the process of integration of subject matter. In private conversations a few teachers have reported that the reflection step is still the one most often overlooked or ignored, and that they are making efforts to ensure inclusion of reflection time and activities. Although PBL is used by all levels and classes, I am uncertain of how much the frameworks and examples created by the research group have been utilized by the teachers. It appears that the process of creating a framework was useful but that the form of that framework is still in transition. It is difficult to reach a firm conclusion on the impact of the CPAR project in this area.

The PLD plan proved short-lived. Although the teachers had a meeting schedule planned, what actually occurred was mostly discussions about scheduling and school updates. The teacher meetings lost their tone of reflection on practice and became mired in logistics and busy work. The group developed no new goal or end product to refine or improve.

In the last year (since my return) a new PLD plan has been established, that includes observation time in each other's classes and one Friday meeting per month dedicated to reflection and discussion on the process. The teachers have also started reading together two of Dewey's foundational books on education, *Democracy and Education*, and *Experience and Education*. These were chosen in response to the findings that a gap existed in the research members' knowledge of theory that is central to progressive education.

This has been reinforced as a result of my employment in the school and I do not believe that the initiative would have been maintained in my absence.

There is a new, externally mandated product on the horizon - the NAIS self-study. The self-study follows a cycle similar to CPAR and experiential learning cycles. It asks small groups that include a mix of teachers, staff, board members, parents, alumni, and students to work together to describe school programs, identify strengths, challenges and come up with a list of recommended actions for improvement. By implementing this NAIS plan, in the first-year reports will be generated from each small group and collected into a larger self-study document. The following year a visiting team, composed of individuals from other independent schools accredited through NAIS will spend three days at the school, comparing the written report to the program they see in action. Together, that visiting team generates a written report in response to their visit with commendations and recommendations for the school. I see this as an opportunity to put the CPAR cycle back into practice. The self-study has tangible meaning and value which were crucial to the engagement in the process; something that was identified in the analysis of the data. Despite my passion for teacher-initiated projects as shown by the CPAR methodology, I can now see the potential benefits of an externally mandated PLD – as long as it aligns with the CPAR approach that I believe in.

The importance of the connection between products and process was revealed in the limited impact of the PLD plan, particularly because the absence of a clear product or outcome meant the meeting schedule lacked focus or direction. I now turn specifically to the process to view what parts maintained their momentum and consider why some things continued smoothly and some faltered.

Process

Has the process continued over the last eighteen months? In viewing the first semester of my return to the school, I can view how the process has developed over time. Because dynamics had changed it has taken

time to establish a rhythm and to get back on the same page. There were new roles to establish and a new cycle to define and shape. I am no longer the research facilitator and I now represent the administration. Fullan (2015) talks extensively about the process of change in education reform. He refers to Marris (1975) and his work in dealing with change and its connection to meaning:

No one can resolve the crisis of reintegration on behalf of another. Every attempt to pre-empt conflict, argument, protest by rational planning, can only be abortive: however reasonable the proposed changes, the process of implementing them must still allow the impulse of rejection to play itself out (p. 166).

All change is hard, and it always requires time and reflection to acknowledge the situation and people involved. As the analysis of the first focus group meeting highlighted, all my work, research and preparation did not mean the research group was at the same place in their thinking as I was. Because the idea was to work together as a group to identify and initiate change, time and reflection were required to agree on what that change was and how this particular group would interact with it. It seemed as if I was making the same mistake again of expecting everyone to have the same goals as I did. With a new school year and some changes in personnel, we needed the time and space to establish a new culture. I had spent a year analysing the data, researching and writing about the process, and now I had some ideas for what we could do together. Again, I needed to be reminded that the group of teachers now needed time to get on the same page. There were also a few changes in staff, new roles in administration, and new students in the mix. The school was growing, but time was needed to create buy-in from the new members of staff and time to allow new roles to settle in.

A new school year always means change. Every year, in each individual class, there is a dynamic unique to itself that requires time and attention to establish a culture. The situation had changed and there was no research study driving the cycles of reflection. There were no focus group meetings to be recorded and transcribed, but there were teacher meetings on Fridays that could be utilized for new cycles of group

reflection. The first few months of school happened, and it became clear the meetings were generally being used for housekeeping and scheduling. The group needed some intentionality and direction. This stage was the most frustrating for me, when things are not working, I find my anxiety starts to build. Fullan (2015) points out that transition and change is hard and is often accompanied with false starts and is rarely smooth sailing. This is similar to the classical theory of team development which asserts that every change of team membership is followed by the inevitable cycle of “forming, storming, norming, and performing” (Tuckman, 1965, p. 396). This cycle needs to begin again, similar to the CPAR cycle, when new members arrive or when new goals are set. It is interesting to reflect on how I ‘know’ this, but need to keep re-learning it because of the assumptions I bring to the process that others are at the same point in their thinking as I am.

The process identified in the analysis of the data reflected that the research group demonstrated what Schön (1991) describes as practitioners tacit knowledge, they “... know more than they can say” (p. 8). Through the cycles of CPAR and experiential learning the research group attempted to articulate some of that tacit knowledge. This was identified as a challenge by the research group during the focus group meetings, that the school often struggles to articulate its programs and this process of intentional reflection on what the school does and why, helped in articulation and documentation. A challenge noted upon my return is how to extend this process and institutionalize it. Setting a schedule for PLD was not enough. Although the teachers continued to have weekly meetings, those meetings did not maintain the same character that made the focus group meetings productive for PLD because process and product appear to be intertwined.

The research identified the elements of dialogue, structure, and authenticity as essential to the process, so it makes sense to look at these, since the time of the original research. The group did indeed meet weekly, and although I can assume that there was dialogue during the meetings there is no transcript to analyse,

nor were any notes kept of the topics covered. The meetings since my return have not been recorded either, but notes are kept, and teachers are asked to keep a weekly written reflection. Teachers create weekly updates on a Google form to which all teaching staff have access. This relates to both dialogue and structure. The documentation is digital, but this space allows the teachers to articulate what they are doing on weekly basis and it can be used to share together why things are working or not working in their classes. The literature on education reform articulates the need for teachers to be involved in self-assessment in order to improve their practice (Fullan, 1993, 2015; Nolan, Raban, & Waniganayake, 2005). Although in the year I was absent there was a structure in place and a time and location for the meetings to happen, the teachers reported there was a lack of focus on PLD. During the research cycles the group had identified topics that might be covered in those meetings that would relate to PLD. During the year that I was absent there was no instigator; someone with a vested interest in making sure the topics were covered in the meetings, or even reflecting or observing on why they had not been covered. “While participatory approaches seek socially and environmentally just processes and outcomes, they nevertheless constitute a form of power and advocate the need to be alive to the fact that they can sometimes reproduce the very inequalities they seek to challenge” (Kindon et al., 2008, p. 94). This highlights the potential of CPAR undo or produce outcomes that might be counter to what was originally intended by the researcher or the participants.

In relation to authenticity, maybe this year of stalling or treading water was unavoidable. Two of the teachers had communicated to me during my absence that they felt the school was in a holding pattern, waiting for my return. This may have created a dis-empowering atmosphere. My personal journal reflects my frustration and inner conflict on realizing that the staff seemed to be waiting for me to take the next step. “Although I’m flattered that they seem to be waiting for my return with bated breath, isn’t this what I was trying to avoid? Wasn’t I trying to empower the teachers to reflect and act on their own...they don’t

need me, or if they do I've screwed up?" (personal journal, April 4th, 2019). It did not take long however to get back in the swing on the process. Upon reflection, I do not think it was me who was crucial, but a catalyst or leadership initiative of some kind was necessary to restart the process. It is with this in mind that the focus now shifts to a reflection on the influence of power over time. Did I miss an opportunity for empowering a participant through the process of CPAR to step in and take over? An added step might include identifying a new facilitator, a person willing and capable of overseeing the continuation of the cycles of reflection. This would take place before a departure to maintain the consistency of CPAR.

Interestingly this has happened in the last two months, just because I've been so busy. I've been meeting with the teachers to check in and make sure they have agendas set for small group meetings, do you have clear objectives, do need my help in anything...no? Great, you guys go off and take care of business, report back to me later (personal journal, 3rd February 2020).

I was initially disappointed that the PLD plan had not been more fruitful. Since then I have come up with some strategies, partly out of my increased workload, I was unable to be so involved in this process and this has resulted in the empowerment of the group that was missing from the original iterations of our CPAR. Darling-Hammond, Hyler, and Gardner (2017) address this issue of PLD continuing beyond the original trainings. They recognize that for sustained duration increased collaboration with colleagues is crucial. This is still a work in progress, but that is a true mirror of the cycles of reflection and action.

Power

How have the power dynamics evolved and changed over time? In the chapter on power, I examined the influence of power in relation to the power of the products, the power of the process and the power of the people. A short reflection on the state of each is included in what follows.

The power of the products

The improvements to the NCR emboldened some of the teachers and was a product I was proud to share with school board members, some of whom have been with the school for its entire 44-year history. This product has continued to hold power and has been a tool for reflection and improved practice. This aligns

with the findings of this study as the NCR serves as a meaningful product that articulates the complex nature of progressive education. Some of the other products have not maintained their power over time. The PLD plan in particular did not exerted much influence over the routine practice of the teachers, but the new plan that is in development may respond more effectively the teacher's needs. This reflects one of Fullan's (2002) guidelines for understanding change,

Appreciate the implementation dip. Leaders can't avoid the inevitable early difficulties of trying something new. They should know, for example, that no matter how much they plan for change, the first six months or so of implementation will be bumpy (pp. 17-18).

Our implementation was definitely bumpy, it was hard to foresee which products would be helpful and which ones might create stress or more work than they were worth investing in. It wasn't until the new school year started and the teachers began to use the new or redesigned products that their effectiveness could be evaluated. The products of this research project did indeed hold power, more some than others. It is inferred that having a product to work toward was important, even necessary but the value of the product also mattered. The products need to be continually evaluated for their usefulness and appropriateness to circumstances.

The power of the process

The process itself continued to hold power, specifically in the awareness of the alignment between what the research group had done together and what the teachers were asking students to do. Although the PLD plan did not continue as planned, planning and discussion happened in other settings. In conversations with the teachers since my return, they noted that the discussion begun in the research had continued in a less formal process during break times, and while out on the playground watching the students. The level collegiality and support has stayed high, and the group of teachers functioned as a team, assisting each other, problem solving and demonstrating a culture of commitment. The year between the conclusion of the study and my return to school was an opportunity to see how much of the process was self-sustaining

without the influence (or power) of a research facilitator. I can conclude that the power of the process did endure although perhaps not exactly in ways that I had expected. The benefits of the collegiality developed through CPAR yielded diverse outcomes.

The power of the people

Power exists in the balance between letting go and tight control. “Yes, participation is a form of power, but then there is no escape from power” (Kindon et al., 2008, p. 93). The teachers who participated in the research still appear empowered. There was an eagerness to take seriously the reforms and changes the research group had put in place and make changes to their daily practice. But there was an element of hesitation or waiting to be told to re-engage in the process of reflection. Although my journal reflects my frustration at this realization, this might be an important element of power. It would be naïve to think all power could be, or should be, removed from the situation. There is a hierarchy that exists for particular reasons and that is not entirely unhelpful. A Head of School is required, and that person is important in setting the tone and culture of the school (Fullan, 2002). A clear understanding is required of what the power dynamics are and a recognition of different roles necessary to keep the power in balance is required.

By recognizing the roles of power, emotions, space, and place within PAR, and PAR’s embeddedness within multiple scales, we can be more explicit about the cartographies of our engagements and ensure that all three elements – participation, action, and research – combine productively to effect positive political change (Kindon et al., 2008, p. 94)

What power can I, and should I, turn over to the teachers? And what role can I play that gives the teachers a sense of ease that someone is in charge and taking responsibility for the hard decisions? These were some of the questions I grappled with while trying to strike a balance within the gradient soup of power.

APPLYING THE FRAMEWORK

Looking back at the visual model I created through this research it can now be analysed and applied to the future frameworks for PLD or further research. Below I break down the original model and identify what

the products were, list the steps included in the process, and identify the elements of power at play in order to gain a better view of how this can be applied to other situations.

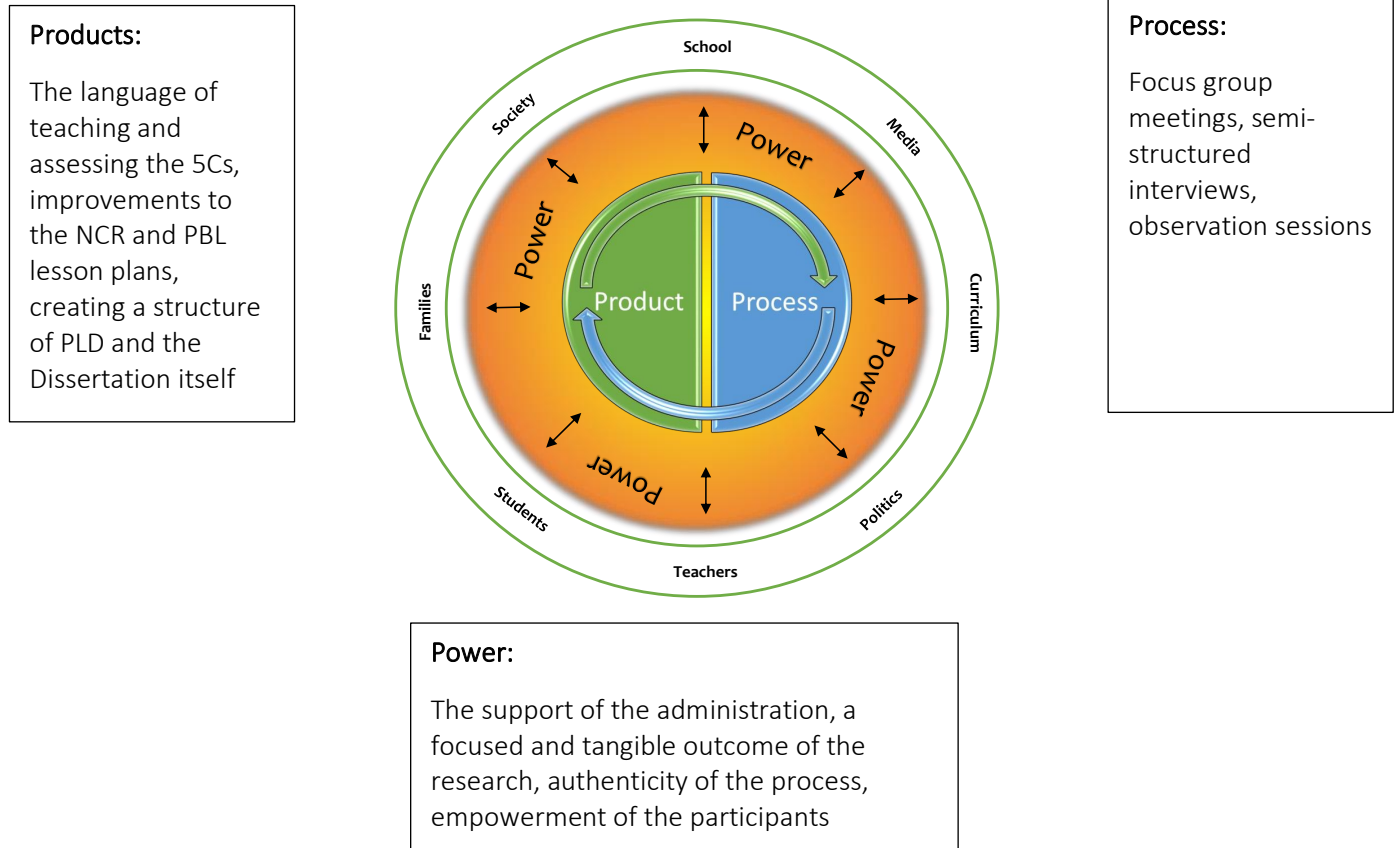


FIGURE 25: APPLYING THE FRAMEWORK TO THIS STUDY

The findings revealed that some elements were missing in the interim year between the research and my return to the school. There was no specific outcome identified at the beginning of the school year and although the teachers held regular meetings these lacked the reflective structure. The missing elements may explain some of the struggles to continue the feelings of productivity. This research indicates that the lack of a specific product may have contributed to a less empowering atmosphere. As several research group members noted feelings of engagement with creating something of meaning during the study. Below is the framework applied to the interim year using the visual model created for this study.

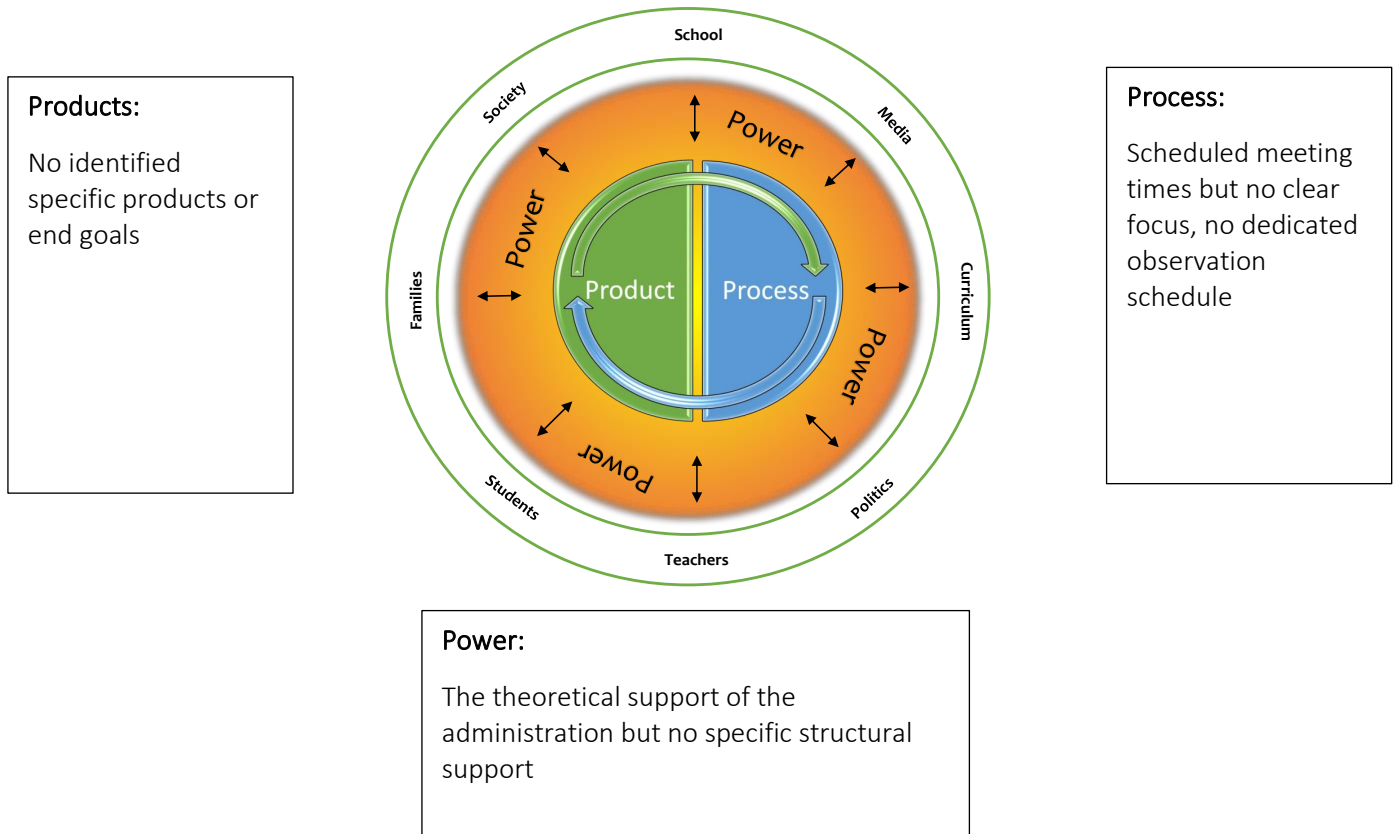


FIGURE 26: APPLYING THE FRAMEWORK TO THE INTERIM YEAR

This new application of the framework again balances out the influence of power on products and process. The lapse of time between the study and my return to school allowed for details to play out. Some changes stuck while others fell away. This is a reflection of a line (translated from the original Scottish dialect), from the Robert Burns poem *To a Mouse*, “the best laid schemes of mice and men often go wrong” (Turnbull, 2017, p. 18). No matter how much planning and forethought we put into a project we do not know what will come, until it does. Once it does though, you can observe, reflect and change and therefor continue the cycles of CPAR. As a reflective practitioner I have taken the time to look at the model created in this study and applied it to a new framework for this school year.

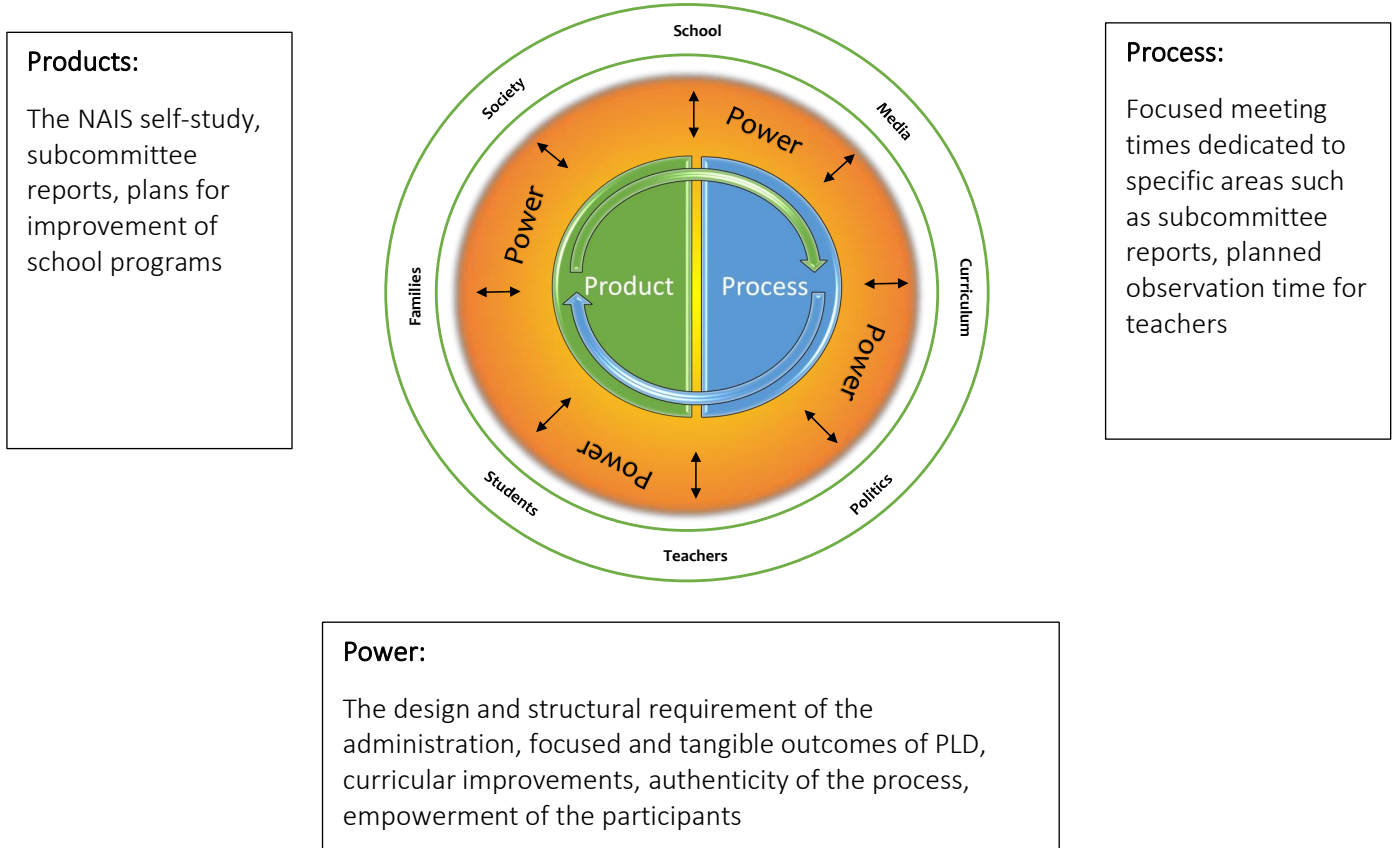


FIGURE 27: APPLYING THE FRAMEWORK TO THE CURRENT SCHOOL YEAR

In the context of the school where this research was conducted it was helpful to use the framework of the 3Ps to observe how things changed and shifted during my absence. Now that my position is administrative and therefore has more power, how will that change the issues of power and coercion? New questions arise that need attention to address new challenges. What is it that this new group wants to get out of this new cycle? In addition, what are the new locations of power, without an acknowledgement of power people might try to apply this framework to a context where the power relationships are significantly different. Careful analysis on power before and during the cycles of reflection and action are critical to each iteration and place. In order for the teachers to engage in the process and feel empowered they will need to identify new goals, or products, to work toward. It is possible that the reflective process may be perceived hierarchically now that they are being directed to engage in cycles of CPAR.

Summary

The space that elapsed between the research and my return to school added the additional element of time to the study. Time allowed for some things to shake out or settle, and others to fall away or reveal their lack of integration into the school programs. The group of teachers had lost two research participants and gained a new core teacher. Some of the previous activities had continued in my absence and others had not materialised, so, inevitably, things had changed. “Real change, then, whether desired or not, represents a serious personal and collective experience characterized by ambivalence and uncertainty; and if the change works out, it can result in a sense of mastery, accomplishment, and professional growth” (Fullan, 2015, p. 21). A closer look at the current school program reveals much about the changes that occurred since the research concluded. The product of the NCR held up over time, but the changes to the PBL framework were less consistent, and the PLD plan had failed to materialize. The process of reflective practice was still evident in the teaching practice, and new cycles of reflection were evident, though in a less formal structure. The power relationships had shifted, but the teachers still expressed empowerment in their actions and ownership of their teaching practice. My return to the school has helped to inform the conclusions and implications of this research. The identified themes of Products, Process and Power remain relevant, part 3 of this dissertation will deal with relationships between these themes and what that means to the school, to education, to CPAR, and beyond the field of education. I will discuss the question of why this research matters. That discussion will address the deeper meaning of some of the points raised here in the findings and make suggestions for future research and implications of this study.

PART 3: DISCUSSION OF THE BIGGER PICTURE

These discussion chapters present some reflections on the outcomes of the research from the perspective of practitioner research this represents the 'so what' and 'now what' of the study:

- Chapter 6 is a reflection on the tensions that made this study both meaningful and challenging
- Chapter 7 is the implications of this study
- Chapter 8 is a conclusion and final reflection

CHAPTER 6: THE TENSIONS THAT MADE THIS STUDY MEANINGFUL AND CHALLENGING

There were elements of the cycles of participant research that made this study both meaningful and challenging to the research group members and myself as the research facilitator. These seemed to exist on a spectrum or a tension between sometimes opposing forces. The research was situational and relational, dependent on people to respond and take risks, even to leave themselves vulnerable to criticism. This aligns with a social constructivist framework. In reflection on the process of the research design, the implementation and the outcomes, several elements stand out that contributed to the positive outcomes of the research, and also challenged it. In my experience as an instructor of TET (Teacher Effectiveness Training) I have noticed that people usually try to avoid conflict. TET is a conflict management training course that offers teachers certification in negotiation of conflict situations. It recognizes that classrooms are rife with conflicts, many of them helpful and constructive, which can drive the action (and learning) in the classroom (Gordon & Burch, 2003). TET demonstrates that conflict, or tension, is necessary, normal and important. How people handle the conflict can be the source of problems. The following sections unpack these tensions, framed through change and time, knowledge generators verses technicians, emergence and trust, and education as neo-liberal or progressive. These tensions exist, constantly exert

pressure, and we should be concerned if they are *not* happening. These tensions are described as sometimes meaningful and sometimes challenging, but the distinction was not always clear. There were moments that were both meaningful and challenging at the same time, and others that began as challenging and became meaningful, or began as meaningful and became challenging.

6.1 CHANGE AND TIME

“Be the change that you wish to see in the world” – Mahatma Gandhi

Although this often-quoted inspirational motto is simple sounding, change is a complex and at times hard, often challenging. The influence of change on this study was ever-present. In order to affect change certain conditions must be present. Fullan (2014) stipulates that in a school setting this means institutional support and individual teacher buy-in. The change process of our research study was spurred by the cycles of reflection and action in the design of CPAR (Anderson et al., 2007; Mertler, 2019). This process allowed the group of researchers to develop a shared meaning to our work. It energized and enlivened the group and there was a tangible difference in the teacher meetings and collegiality of the staff during the research process. An example of the meaningfulness of the research. I had been present at the school a year before the research took place and I could observe a disconnect between staff members. Teachers mainly stuck to their own classrooms with different factions of teachers seeming at odds with each other, and at times with the school program. One reason that the administration agreed to this research study was a desire to change the culture of the teaching staff, and a hope that reflective practice would shift the culture of the teachers to a more productive, dynamic and supportive one. The findings of this research demonstrate that CPAR was a useful tool to support change in the school’s programs, and therefor meaningful to the administration.

Kate: this process has been very enlightening for me because it's given me a new framework to kind of view the processes that we use as teachers individually and how we collaborate together

Josh: I felt like each one brought valuable content ... and reflection but also action I felt like you know it wasn't just a deliberation and wishful thinking there was you know ...there were changes that were made ...through that process there I thought was very useful and fruitful and you know I wish we had more sessions

The research group members felt energized and enlivened by the focus group meetings and the discussions that the observations of each other had produced. Another example of the meaningfulness of the study to the participants.

Teacher burnout, Fullan (1993) notes, is a persistent problem in education, as teachers in practice find the experience to be less consequential than they had hoped for. What Fullan argues for is a connection between the “moral purpose” of teaching and “change agency” (p. 12). He identifies “four core capacities for building greater change capacity: personal vision-building, inquiry, mastery, and collaboration” (p. 12). This research reflected some of the ideas put forward by Fullan to improve the practice and culture of the teachers, such as “practice reflection in action, on action, and about action, trust the processes as well as the people” and “...commit to working with colleagues” (p. 17). In this particular study the analysis of the data reflected that the teachers who participated in the research were in fact change agents of their own practice. Through working together to identify problems, suggest solutions, try them out, and reflect on the outcomes together, they were able to make significant changes in their day to day practice. This was both meaningful and challenging, as the process of reflection requires extra work and time from the participants.

This study shows that teachers find change hard, and this came through strongly in the focus group meetings where the discussion continually returned to the challenge in articulating the school’s programs. These challenges and problems were not a new discovery but had been continually identified. Fullan argues that change must be hard. It is supposed to be. One of the rising challenges in education is the rapid pace

at which change is occurring in our lives. One is reminded of an original motivator for this research; “We are currently preparing students for jobs that don’t yet exist . . . using technologies that haven’t yet been invented . . . in order to solve problems we don’t even know are problems yet” (Trilling et al., 2009, p. 3). Technology is revolutionizing the way we communicate, know things, get things, think, travel and deal with issues of health. The change is happening so rapidly that schools are struggling to keep up. What is it that students need to know to successfully navigate this brave new world? What this research offers is a tool or model of the 3Ps for teachers to grapple with some of those questions. Teachers noted the alignment between the CPAR process and their classroom practice. In the findings where I identified the elements of authenticity of the Process, I highlighted Sandy’s comment, “I feel like it’s just as meaningful that we demonstrate that the teachers are engaging in, experiencing the program in the same way that we’re putting to the students”. This comment to me references the need for the teachers to demonstrate their engagement in the learning process, not just tell students to do it. It highlights the element of responsiveness to changes in the current political or cultural environments and is another example of the meaningful work we did together. In the discussion of the Parkland US school shootings, the teachers articulated their reticence in forcing discussion or actions from their own students. This reticence was in response to some parents and community members asking what the students at the school were doing in response to the shootings, the teachers had engaged the students in dialogue but felt any action (or protests) should come from the students not be a directive from the teachers. This demonstrates the challenge of responding the changing political and social environment.

Change and time are inextricably linked. With time all things change, and as Fullan (2015) points out time is a necessary element of change. My return to the place of the research added an expanded length of time to this study that may not always be present in research. It also revealed the tensions that arose and lead to the loss of empowerment of some of the teachers. When the research group members worried that my

absence would stall the forward momentum, a small part of me was pleased. I had significance; my identity is wrapped up in making a difference and being a catalyst. This research fed that identity and I found that being needed felt empowering to me as an individual. However, if I want CPAR to follow a democratic process, it should continue without an external motivator as central to make the research meaningful to the participants. The findings show that the structure of the CPAR cycles empowered the teachers as the focus group meetings themselves provided a platform for meaningful discussion and reflection. This by itself would have been beneficial to the research group members in understanding their practice. The additional time provided at the in-service gatherings allowed the reflection and planning to translate into some kind or concrete product that could be evaluated after the implementation. This is where the added benefit of my return as Head of School reinforced the outcomes of this study. My return brought focus back to the products created and allowed me to reflect on how the new products have been implemented and if they have initiated the changes they were designed to create. My return is not without complexity, because my role has shifted from practitioner partner to supervisor. This shift in power will have consequences that the group of teachers will respond to. Without this return, would these products have been lost? This leads directly to the next reflection on knowledge generation of teaching practice.

6.2 KNOWLEDGE GENERATORS VERSES TECHNICIANS

Who is allowed to add to the body of knowledge of teaching and learning? It is both meaningful and challenging to ask teacher practitioners to add to the body of knowledge of teaching practice. Traditionally, the academy holds the keys to knowledge generation and publication. Cochran-Smith and Lytle (2009) point out that teacher practitioners are often excluded from this realm.

Arguing that neither process-product nor interpretive research on teaching recognized teachers' roles in the generation of knowledge, we pointed to some of the consequences of this omission, including teachers' ambivalence about academic research and the field's lack of information about classroom life from an emic perspective (p. 5).

These authors argue that what is needed is a respect for teachers' emic understanding of what happens in their classrooms and a belief in their ability to make educationally sound changes to their practice. The body of literature that exists on practitioner research is mostly created by university-based researchers (Cochran-Smith & Lytle, 2009). Although this study included teachers as research group members who assisted in the design and implementation, none of their names are attached to this research, nor did they participate in the literature review or writing and dissemination of the findings. Giroux (2003) argues strongly that progressive educators should "vigorously resist any attempt on the part of liberals and conservatives to reduce them to the role of either technicians or multinational operatives" (p. 10). Here he is forcefully noting that the effect of the corporatization of education is both disempowering to educators and stripping education of its democratic and civic duty (p. 9). If teaching is a craft as established in the literature review, then teachers must be free to respond to students and classes, to generate new curricula and activities based on the individuals they encounter and be trusted to use their judgement to interpret situations.

It proved challenging to include the research group members in the academic review of literature and the generation of written products. What teachers have to say about what happens in their classrooms is important, and one would think that anyone proposing changes to education would need to spend time in classrooms with teachers, asking questions about practicality and resources. What this research reveals is that teachers have much to say about theory and practice, once you get past the jargon. "It is evident that one of the many uses of theory in academic locations is in the production of an intellectual class hierarchy where the only work deemed truly theoretical is work that is highly abstract, jargonistic, difficult to read, and containing obscure references" (hooks, 1994, p. 64). A challenge in this research was to translate some of the progressive education theory into common language. The research group members were hesitant at times to engage in the literature, and during the focus group meetings expressed the desire to use

language with which parents and the surrounding community would be familiar. As Laura points out, “I don’t even know how to talk about it...”. Their tacit knowledge is experiential, and possibly representative of phronesis, in that they make wise decisions for the developmental needs of their students. There is a recognition amongst progressive educators that learning facts (or outcomes) is not enough, the process of learning and meaningfulness of the information acquired to the individual student and their community takes precedence. “In education, many have thought we should try, not simply to do the teaching actions well, but to bring it about that somebody learns something” (Mackenzie, 1991, p. 156). Here what is highlighted is the difference between knowledge of facts and ‘learning’. If academics are truly interested in a shift in education, they really ought to consult the experts; those who actually practice the craft of teaching.

A challenge remains in how to improve the connection between the theory and practice in educational practice (Berry, 2007). Berry refers to what Schön calls the “intermediate swampy zone”(p. 32) where the main challenge can be to explain the complexity of this relationship to others. Berry (2007) refers to Nicol’s articulation in her self-study of the challenge in dealing with tensions as “deliberating about alternatives rather than making choices” (p. 32). Rather than viewing tensions as pulling things apart, it is useful to see them here as holding things together. More go-betweens are needed, people who are comfortable in both realms of academic literature and teacher practitioner. In this research there was resistance on the part of the research group members to accept overt academic expectations. A worry existed that I might make them write something or read jargon-laden journals. The focus group meetings revealed a hesitation on the part of the research group members to admit they might not be able to articulate the theory. This is supported by the way that the discourse deepened as the focus group meetings progressed. By the third focus group meeting the members were opening up much more freely about their practice and asking and answering more theoretical questions about 21st Century teaching and skill assessment.

Did I effectively engage the teachers in the research process? One area that I feel was lacking and challenging was engaging the teachers in background research and academic writing. I was hesitant to ask the teachers to do research or write up reports based on our work together. Johnson (2019) includes this as a necessary step for effective problem solving in professional development since by including teachers in the planning stages, “teachers look for research-based strategies directly related to the identified problem” (p. 259). We identified the problem together but I, “the research facilitator”, conducted the literature review. In order to strengthen the professional development aspect of using CPAR, the teachers would need to engage more in the review of literature and writing of findings for the research. This seems like a challenge to the already established overflowing cup of the professional lives of teachers. There was an inference that by engaging in deeper academic study the individuals would have to sacrifice their time with and for their students, time with their families or time with their own recreational pursuits. However, of the group of teachers who participated in the research several have expressed interest in creating presentations for NAIS conferences and workshops, and two have become Fellows through a local arts integration initiative. These are meaningful outcomes. There is encouraging evidence that participation in the research may have increased their contributions to the discourse on progressive education.

6.3 EMERGENCE AND TRUST

Another aspect that proved both meaningful and challenging related to control verses letting go. What were the ways that I, as the research facilitator for this study, had to let go, walk away, relinquish control, or allow results to emerge? A central element to empowerment is releasing power. This study revealed some of the specifics of what that looks like with a research group, and that research group reflected on what that looks like with students. During this study it was challenging to balance freedom (letting go) and control of the quality of the products. I was constantly worried that we wouldn’t produce anything

meaningful, that I ought to push the group harder to stay on task or get back to the point. Sometimes I felt like the Big Meanie ruining everyone's fun. There were other moments when we were in the zone, as my research journal notes. "It doesn't matter what we produce, this moment is important...these conversations are the ones I wish we had had many times over years past" (personal journal, 17 April 2018).

Rather the idea of inquiry of stance has emerged—and, we suspect, this is why it has resonated with so many others—out of the dialectic and synergy of inquiry, knowledge, and practice and from the intentional conceptual blurring of theory and practice, knowing and doing, conceptualizing and studying, analyzing and acting, researchers and practitioners, and public and local knowledge (Cochran-Smith & Lytle, 2009, p. 3).

What Cochran-Smith and Lytle are referring to here is the emergent force of practitioner research, that you cannot pre-plan every step. You set a process in motion and respond in the moment with experience and knowledge tied to practical action. A force exists between the structure of the process and the requirements of the research project that had power over the research design and gave it momentum.

In order to be authentic and in alignment with the CPAR cycle, I had to let go at moments that felt uncomfortable, this was challenging. This was particularly evident during the in-service stage of the research cycle. This need to turn over control of the products required me to physically back away from some of the discussions, and at times leave the room, to allow the research group members the space to create the documents and make the changes to their curriculum. My research journal from that time reflects my feelings, "I have just left the teachers to get to work...and I feel at a loose end. Will they think I've abandoned them to do the work? It just felt like I was extraneous to their progress..." (personal journal, 7th June 2018). This letting go was also related to the research topic, I as the research facilitator had originally started with questions related to teaching and assessing 21st Century skills. As the cycles of CPAR continued the focus of the research shifted from the skills themselves to the process by which the research group members wrestled with the skills, collaborated with each other, reflected on their own practice, and set out to improve their teaching and assessing of the skills. A lingering tension remains between control

and letting go; trusting the process. Smith et al. (2010) refer to the “power-sharing” (p. 409) dynamic that is core to CPAR and reflects how power is shifted from usually university-based researchers to marginalized voices of these now co-researchers. There is a fear that the right things will not happen, or even worse that wrong things will. Fear of failure, or embarrassment is a concern, and a challenge, that stops many teachers from engaging in academic research. This power sharing is also closely related to trust and gave meaning to our process.

This research process and the cycles of CPAR that were engaged in by the research group required elements of both trust and risk. For Biesta (2006) trust and risk in education are inextricably linked.

There is also the risk that you will learn things that you couldn't have imagined that you would learn or that you couldn't have imagined that you would have wanted to learn. And there is the risk that you will learn something that you didn't want to learn—something about yourself, for example. To engage in learning always entails the risk that learning might have an impact on you, that learning might change you. This means that education only begins when the learner is willing to take a risk (p. 25).

In this research the learners are the research group members who participated in this study, and risk exists for them and the school, risk that they may learn things about their practice or the school program that could cause unwanted changes. By giving autonomy and power to the research group, the school was opening itself to change. What if the group came back and said, “You know what? The existing program does not support our understanding of the theory of progressive education!” Further study utilizing perspectives from Foucault (1995) and Giroux (2009) with a view into critical pedagogy would merit its own doctoral study.

6.4 PRIVATE EDUCATION AS NEO-LIBERAL OR PROGRESSIVE

This research project revealed a private school that exists between the extremes of neo-liberalism and progressive education, it presents seemingly antithetical entanglements. A continuous struggle that surfaced in the focus group meetings was the difficulty in meeting parent expectations of 'education' in exchange for 'tuition'. Can a school that charges fees for tuition and in turn has demands of expected outcomes from families deliver a progressive education? As a private school it is close to the neo-liberal leanings of commodifying education as something that has monetary value, and yet at the same time being a private school means it has the freedom to opt out of state mandated student achievement tests and curriculum (Giroux, 2003). The school has the freedom to design curriculum and set its own standards of success in these areas. The language of assessment framing some of the discourse in 21st Century skills imbues a neo-liberal meaning, and it was challenging to untangle this meaning to align with this school's progressive education theory of student growth and development. Social constructivists and progressive educators see students as arriving at schools with knowledge and skills already present, and it is the role of the school to provide a rich learning environment to nurture and respond to the student as opposed to shape the student to the pre-determined outcome (Moon, 2004; Mooney, 2000). The school in this research project existed within the murkiness of these two extremes. At times responding in neo-liberal ways to questions of 'value', a word with a decidedly neo-liberal nuance, while still maintaining a progressive stance on documentation and student learning.

SUMMARY

These elements of means and ends alignment, change and time, knowledge generators versus technicians, emergence and trust, and private education as neo-liberal or progressive were at times challenging and also contributed to the meaningfulness of the research cycles in this study. They also represent the tensions that this research project lay within. Embracing the murkiness was an important element revealed through

the findings. “For many teacher educators, the difficulties associated with researching personal practice lie not so much in recognizing the complexities inherent in their work (these they readily see) but in finding ways of representing that complexity to others” (Berry, 2007, p. 31). Although this research project was not a self-study it shared many elements common to self-study, particularly reflection on practice.

The ambiguities and complexities inherent in teacher educators’ work often become more apparent through their investigations of practice, as they come to recognise themselves as “living contradictions” (Whitehead, 1993) and as they learn to become more comfortable... (Berry, 2007, p. 42).

This ambiguity and reflection of these tensions and their possible positive effects on practice, helped the research group members understand the challenges and solutions to improving their teaching of 21st Century skills.

The themes identified through the research of Product, Process and Power represent the inextricable messiness of CPAR. When you attempt to access all the voices of a group you potentially open yourself up to the unexpected, and possibly unwanted. The alignment of the process itself with the outcome sought was persistent throughout the study, and the ends and means alignment was of note to the research group members themselves. They articulated on several different occasions that what we did together in the research reflected the model of the school program. Change and time are inevitable, and also important to education reform. He or she who is allowed to generate knowledge in the field of teacher practice holds the keys the changes to come. Through the process of knowledge generation new ideas and theory emerge. This emergence of new ideas requires trust, from the administration, with each other, and of the process. This framework, or model, can be used as a tool for CPAR or general PLD in any field. These tensions were present in the study and reflection on them assisted this research to gain an understanding on how the process developed and what obstacles or challenges the group addressed.

CHAPTER 7: IMPLICATIONS

The design of this research sought answers to questions related to the teaching and assessing of 21st Century skills. The answers found, the ways this research group went about identifying questions, and the ways in which they engaged with solutions can serve as an example and a reflection piece for other educators. Here I elaborate on the implications related to education, beginning with the research group members who participated in the study, then outward to professional development and practitioner research, then to progressive education or non-traditional schools, and finally to more traditional contexts.

7.1 IMPLICATIONS FOR THE RESEARCHERS WHO PARTICIPATED

It is important to start with this specific school. As an insider from having been a teacher there, I knew some of the issues the school had struggled with for years and as a more recent outsider I was able to bring in the element of academic rigor and understanding of the scholarly literature to address these issues. When I had been a teacher at the school there was a growing list of things the staff talked about doing, and needs we articulated that seemed to fall by the wayside through the course of a school year. It was a wish list or bucket list of dreams. Since it is a small independent school with a tight budget, PLD was always a crapshoot. During some years it was fantastic and other years it was pointless. Looking from the outside I could see how desperately the school needed a plan to ensure a structure for the PLD that they should have offered to support their teachers. The use of CPAR during this research provided a structure for PLD, and the urgency of completing the research within a framed period of time gave a fixed point to shoot toward, as a group. During the research the group also identified the lack of consistent PLD as a serious issue in relation to consistency and new-teacher training.

The structure of this research offered the participants an opportunity to have meaningful dialogue about their practice of teaching. Webster-Wright (2009) refers to the “power of discourse”(p. 723) in creating

understanding and knowledge of particular institutions and supporting critical inquiry. The findings of this study revealed that although the research group members shared tacit knowledge of social constructivist theory, they did not possess the jargon. During the course of the focus group meetings there were numerous instances of ‘ah-ha, oh that is why we do things that way!’. Schön (1991) also describes it this way: “...I begin with the assumption that competent practitioners usually know more than they can say. They exhibit a kind of knowing-in-practice” (p. viii). In looking back at the focus group meetings and analysing the data as the research facilitator, I wanted to articulate what happened and why it happened. The data here suggests that the current staff share the social constructivist view of education and that is possibly what had drawn them to teach in this particular school. Some of the strengths of the school’s programs identified by the research group members were the use of the NCR, portfolios and authentic assessment strategies. For the research participants, some of the tacit knowledge was articulated and discussed critically, which allowed for the group to grapple with the complexities of 21st Century skills. In other words, the research informed the theoretical groundings of the teachers who participated as research group members.

The space and time for the discourse also allowed the research group members the opportunity to share strategies for surviving what Huberman (1983) refers to as the “classroom press” (p. 491) or the complex life and expectations of a teacher on a day to day basis. In my experience teachers need this time, but it can be hard to make happen. There is so much that urgently needs to be completed, in preparation for tomorrow, or the next class that starts in five minutes, that even if teachers have the time allotted, if they are not required to attend a specific meeting there are other, much more immediate things that must get done. This also added pressure on me as the research facilitator. I knew how valuable the research group’s time was and felt a responsibility to make what we did together meaningful to the participants. The semi-structured interviews revealed that all of the research group members felt the research process was

valuable, improved their everyday practice, and built collegiality among the members. Kyriakides and Campbell (2004) note that effective school improvements often depend on a school's ability to study itself. This study reflected a practice of active reflection of the school and its members in order to improve and change what it does. Kyriakides and Campbell present "...self-evaluation as restless in its quest for evidence in a school's transparent sense of purpose, behaviour, relationships and classroom performance" (p. 23). This sounds like the process of CPAR that this study followed to identify elements in the school program for enhancement, look deeply at how these elements were being enacted and plan for improvement together.

7.2 IMPLICATIONS FOR PRACTITIONER RESEARCH, PLD AND CPAR

The discussion of transferability invariably arises when research is conducted in the often unique and specific settings of Action Research. This research does not present a step by step guide to practitioner inquiry. In fact, it argues against such rigid guides. Burns (2005) notes this is often a criticism of Action Research models, that they present the process in a systematic way, when in practice it is a much messier process. What this research offers is a framework to approach questions of what is working or not working in classroom settings. It is a view into the form of dialogue that allowed a group of teachers to effect changes in their daily practice.

The explanations and theories of the academic world often do not fit comfortably into people's everyday reality. The language, forms of propositional knowledge, and sometimes arcane idiom of academic texts are frequently inaccessible to a lay audience. Academic theories are embedded in a set of concepts, assumptions, and views of reality that make sense only within a particular social context—in this case, the discourses of the academic world (Stringer, 2007, p. 188)

This view invites the reader to investigate their own practice and make connections to their own situations. Herr and Anderson (2005b) address the "notion of transferability in which findings are not generalized, but rather transferred from a sending context to a receiving context" (p. 298). In their view it is up to the one

seeking information to make applications elsewhere to make those connections and judgements. Rector-Aranda (2019) notes that the goal of research is not always replication, but alignment.

A related concern in social justice teaching and research is that what we do is possibly too unique to the individual instructors and students involved, and therefore may never be fully scalable. While I agree that my enactment of CCI [Critical Compassionate and Intellectual] and others' similar approaches may not be purely replicable – nor do I think they should they be, despite current education trajectories – I do believe the overall matching of our means with our ends, carefully and clearly articulating the assumptions underlying these actions, is a scalable and teachable habit (p. 492).

My interpretation of this is that in education settings, where we have established that learning is not an input/output scenario it is helpful, even necessary, to have similar circumstances to reflect on and compare in order to make changes.

The process identified in the findings provides a structure to follow and gives an academic voice to the teacher practitioner. The problem of teachers as researchers is complex and messy, just as practitioner research should be. Participatory Action Research (PAR) engages underrepresented groups who often are not included in published research (Burns, 2005). As Galletta and Torre (2019) explain, PAR “...is an epistemological framework rooted in critiques of knowledge production made by feminist and critical race theory that challenge exclusive academic notions of what counts as knowledge” (p. 1). The cycles of CPAR that this research group participated in demonstrate the empowerment of teachers and supported the counterhegemonic nature of the school. “This form of participatory inquiry and collective action serves as a countercurrent in schools, where democratic inquiry and meaning making contradicts the top-down knowledge transmission practices bounded by prescribed curriculum and high-stakes standardized assessments” (Galletta & Torre, 2019, p. 1). This also highlights the importance of the alignment between *ends* and *means*. This research is a reflection of an alignment between the teaching and learning of students and the learning and development of teachers.

Reflected in this study through my thoughts as a researcher with this group rather than on this group, is the tension of turning over power to the group, and my own frustration with feelings of letting go and lack of control. It was hard at times to leave them to their work. My journal at the time reflects my internal struggle to let the group act without me, by letting go of ownership of the project. "I am sitting in the office and fighting the urge to walk down to the room where the teachers are working. It is exciting what they are doing...but I have to *let them do it* ...keep your finger out!" (personal journal, 8th June 2018). It was also an act of trust and test of my belief in the authenticity of the CPAR process.

This study looks closely at the everyday practice of teaching and learning. The research group members were specifically tasked to investigate how they actively improve the practice of their teaching and if it aligned with the theoretical grounding of the school. In a review of the literature of professional development Webster-Wright (2009) found there was a gap in the discourse of non-didactic forms of professional learning. "Research is required that views the learner, context, and learning as inextricably interrelated rather than acknowledged as related, yet studied separately" (p. 712). What this research group did together adds to the discourse of how to better reframe professional development into PLD. In order to reflect the social constructivist view of teaching and learning, PLD should also reflect the same epistemology, that teachers construct their practice through sociocultural context rather than seeing "...knowledge as a transferable object" (2009, p. 713).

As a member of NAIS (National Association of Independent Schools), the school has always seen itself as an example of progressive education. A constant challenge has been creating time and money to document the program specifically for the purpose of contributing to the discussion of education reform. This research is part of the first step in a longer-term Teacher PLD Plan to help other schools in similar

circumstances. Collaborative PLD or Professional Learning Communities (PLCs), as they are sometimes called, are popular topics in research across the globe. Hairon, Chua and Abbas (2019) identify that some of the aims of these learning communities are to “support teacher professional development, and to build a fraternity of reflective teachers dedicated to excellent practices through a network of support, professional exchange and learning” (p. 108). By adding our work to the conversation of the role of PLD in a school’s curriculum we are contributing to the larger conversation dedicated to counter-hegemony and support the authority of teachers to know best their craft and participate in the research process. This is a statement about power and control of the PLD process itself. The documentation this research produced has the potential to empower other educators to own and improve their practice through this network of support, if the findings of this research is presented to the body of NAIS.

A complication to the design of PLD in education is that teachers are individuals who learn and develop differently. “For teachers, for example, the ability to engage and challenge may be valued in some contexts, whereas the ability to spend time quietly listening is important in others” (Webster-Wright, 2009, p. 721). What she argues for, forcefully, is to situate qualitative research on professional development in a context that recognizes that sociocultural elements of professionals in order to properly acknowledge the complex and messy nature of situational practice and improvement. When these situational factors are included and recognized in the design of PLD then teachers are more likely to engage in the process and find it relevant to their practice. I concur with Webster-Wright (2009). The research group members of my study, “...were enthusiastic learners who took these professional responsibilities seriously” (p. 725). However as Burns (2005) points out if teachers are to be seen or expected to be researchers in their own classrooms then teacher education programs will need to prepare teachers to generate and test hypotheses in practice (p. 62). Although if we look specifically at CPAR in classrooms and stay consistent with a social constructivist

approach, attention to fostering emergent learning (and research) might be better language than ‘generate and test hypothesis’. If we are into include research or add to the day to day practice of teachers, are we heaping another spoonful into an already overflowing cup?

Critical participatory action research (CPAR) and situational studies require an understanding of the site of practice and the people involved in the situation to be changed (Kemmis, McTaggart, & Nixon, 2014). This study offers a thorough view and analysis of some of the situations that may arise and reflections in practice. Counter to the goal of quantitative studies or positivist research, qualitative studies aspire to contextualisation, not reproduction. This group of practitioners working together represent how things happened in this particular site of practice. Using Kemmis, McTaggart, and Nixon’s (2014) practice architectures or *sayings*, *doings*, and *relatings* this group came to understand better their site of practice and therefore were better equipped to change it. This study represents the use of the public sphere and communicative action and reveals “what happens when people interrupt what they are doing and ask ‘What is happening here?’” (Kemmis, McTaggart, & Nixon, 2014, p. 34). In this instance people worked together to change something in their own practice. This research offers a model that can be used and applied in other situations and circumstances. The framework of the 3Ps offers a way for a group to analyse their particular site of practice and ask questions that will help to set the direction of their study. By examining power, this study reveals the need to acknowledge both the importance of top-down, and bottom- up approaches to enact change. As many institutional changes are top down and hierarchical, this process of CPAR demonstrates a way to engage individuals in a bottom-up change and it represents how successful and meaningful that change can be. Although this research was conducted at one school, the processes is applicable to other contexts in that it contributes to the knowledge of participant research and situational practice.

7.3 IMPLICATIONS FOR PROGRESSIVE EDUCATION

Although progressive education has a long history, it is often hard to translate its theories into everyday practice. This research documents the process of reflection in practice, a key element to progressive education. The school uses at its core the experiential learning cycle, based on Dewey's (1938) work which postulates that experience is the foundation for learning. This research provides documentation on how the school "meets students where they are" (parent & student handbook). It recognizes that individual students come to school with past experience and knowledge and that the school's job is to provide a rich learning environment that engages the students at their individual levels. This also fits within the desires of 21st Century students who have grown up surrounded by technology, so called digital natives, who have expectations for education to respond to their sense of immediacy. "New ways to make learning interactive, personalized, collaborative, creative, and innovative are needed to engage and keep net geners actively learning in schools everywhere" (Trilling et al., 2009, p. 30). The danger in describing experiential learning is that it appears to be a cycle in which sequential, discrete, steps are enacted. In looking closely at how students learn, the learning cycle is more of an organic process whose boundaries ebb and flow depending on engagement (Kolb & Kolb, 2018). It is additionally necessary for the students to connect their learning to their own lives in order to discover how the information is relevant and important to them. This research recognized the connection between how students learn and how teachers learn and also gives examples of how teachers can work together to improve the creation, implementation and reflection on experiential learning itself.

The research also provided a platform for teachers to become learners themselves. The process that the research group engaged in throughout the research cycles modeled the expectations that research group members had of their students in class. For the members, one of the added benefits of the cycles of reflections was the connection to being a student again. An extension to this process would be to include

students in the research. It would be beneficial in any future work, to engage students in the design of the study and have them determine research questions and gather data. This would be a truly experiential learning cycle, where students could design and implement changes to their school and in programs of study which would align with the progressive and democratic ideals of Dewey (1938).

7.4 IMPLICATIONS FOR TRADITIONAL CONTEXTS

This is a small independent school that can design and set its own curriculum, teaching style and assessment strategies. There is no requirement for the school to participate state mandated assessments, and the school chooses not to at this time. Classroom sizes are small and students (or parents) choose this school. These parameters seem specific and quite unique. There are however elements of this research that can be applied to other different classrooms, or teacher training groups. Supposing you are a teacher at a large traditional public (government run) school. What can you take from this study to improve or change something in your own practice? The change can be small. Perhaps you teach a writing composition class and you want students to engage meaningfully in your classwork. Taking the time to know your students interests and background can create more engagement in your class and better meet the needs of individual students (Darling-Hammond, Ramos-Beban, Altamirano, & Hyler, 2016). Does your English department require you to meet with other teachers at the school? Is it possible for you and your department to request ownership (power) of some of your required meetings? You can meet and decide on an element to improve or change (product), and then work together to plan a strategy to make changes (process) (Anderson et al., 2007). Darling-Hammond and Richardson (2009) emphasis that rich content can “make the difference between enhancing teachers’ competence and simply providing a forum for teachers to talk” (p. 47). Studies in traditional school settings have shown that teachers who participate in PLD that is some form of collaborative action research “can become more reflective, critical, and analytical when they thing about their teaching style in the classroom” (Boyle, Lamprianou, & Boyle, 2005, p. 4). It is

important that this product and process is something you as a group can actually change and put into practice in your circumstance (power). Negotiating power from the outset is crucial as there is a risk that such a CPAR product might be rejected by the school leadership. The boundaries and scope of the CPAR should be clear at the outset, to avoid disillusionment and frustration. Darling-Hammond et al. (2016) detail the ways a public school can address many of the changes suggested through the findings of this research.

The public schools in the region of this study are quite traditional and yet they have instituted several opportunities for more progressive educational experiences. One example is the EAST LAB (Education Accelerated by Service and Technology) elective, which requires students to identify a problem in their local community and study possible solutions, which they attempt to implement. Students and teachers who participate in this program will gain a taste of progressive education and problem based learning (Ertmer & Simons, 2005). It is easy to see the connections with initiatives such as these. What may be missing from programs such as EAST LAB is the connection back to the whole school. How can the EAST LAB program change teaching practice in other classes? Maybe a teacher from that program could start to ask students in other classes to think of problems related to their course material, be it science, language arts or foreign languages. Even if teachers shift just a small part of an assignment, it can create engagement for students. Maybe a school isn't ready to abandon grades and move to an NCR or PBL, but they might be ready to offer one course, or one after-school program that follows this model. The English department can decide to make small changes in how essays are assessed, including students in a round of self-grading, or require them to create the rubric that will be the assessment of their own written work. What this research suggests is that these small changes can be made more successful if the teachers who plan and make these changes follow a structured cycle of reflective practice (Kyriakides & Campbell, 2004). In order to do this teachers must have time to plan and collaborate together, this is more effective when the that common planning time is scheduled into their day (Louis, Marks, & Kruse, 1996). The practice must include having a

product (a tangible change), a process (a structured system of reflection on action) and most importantly, they must have the power to make and implement the changes that they identify.

What made this research important to education is evident in the findings. The implications for teachers at this school, for practitioner research, and for educators in general can be extrapolated. The research was important at this school and to this group of teachers, but it is also necessary to point out the importance of this research to a larger audience. What follows is the identification of some groups that may find the research important beyond an educational setting.

7.5 IMPLICATIONS BEYOND EDUCATION

Fullan (1993, 2002, 2012, 2014, 2015) writes extensively about the process of change. Although most of his work relates specifically to educational contexts it can be extended to the business world, social work, and many other realms of work. The process of change requires certain steps. They are similar to goal setting strategies such as SMART (specific, measurable, achievable, realistic and time bound) and team management goals. This research offers insights to groups of people who work together to achieve some kind of change. The relationship between the identified themes of product, process and power are just as important as the individual themes. In fact, power mostly exists in the space between the people, process and products. An understanding of power may assist in the process of change. It is important to identify the things you can change and the things that are beyond your control. Fullan (1993) identifies “four capacities for building greater change capacity: personal vision building, inquiry, mastery, and collaboration” (p. 12). The cycles of CPAR offer a structure to enact change. For Schön (1991) professionals in many fields from architecture, psychotherapy, engineering, scientific research, to the field of management participate in reflective practice and would therefore benefit from the utilizing the cycle of

CPAR. People working together to identify a problem, suggest a solution, trial that solution and then reflect on its effectiveness fits well within a social constructivist view.

SUMMARY

The implications of the research range from the specific people involved with this study and the context of the target school out to the broader field of education development. The changes made by the research group members to their practice and the curricular adjustments will have a direct impact on their students and on the surrounding school community. The school now has a framework for PLD, and an improved NCR to share with the parents and school. The school community now knows how to better articulate what happens on a day to day basis and how its programs contribute to the educational development of the students who attend. This research also adds to the discourse on CPAR and specifically practitioner research. It presents valuable insights in how a group of teachers worked together to solve common challenges in classroom settings. The research revealed the 3Ps of Product, Process, and Power that made these particular cycles of CPAR continue. There were also implications for progressive education in the importance of the alignment of teacher learning together with student learning. The teachers who participated in the study embraced their learning through the cycles of reflecting, discussing, planning, observing and teaching, which is a mirror image of the experiential learning cycle they impart to their students. The scope extended from the broad implications for traditional contexts of education, to smaller changes in teacher practice or student engagement. This study demonstrated the use of the 3Ps that can be applied to small projects, enrichment or to afterschool programs. The language and assessment of 21st Century skills can assuredly be used for traditional classrooms which use group work or assign projects or problems for students to solve. Finally, there are implications beyond education. CPAR fits well within any democratic process of change, especially issues of social justice or community activism.

CHAPTER 8: CONCLUSION

A look at the insights gained as a practitioner researcher. For this school, there has been an expressed enthusiasm to share our process that was developed through this research with the larger independent school community. Now that I am in an administrative position, I can assist the teachers in continuing these cycles of PLD and to publish our work within the NAIS community. Additionally, I can make university connections for continued research into our process. Sustaining the research on our program would add to the knowledge generation of teacher practitioners in the field of progressive education and the teaching and assessing of 21st Century skills. This research did reveal tensions that a school founded on progressive education must sit within, such as responding to an increasing neo-liberal society.

8.1 SOME UNRESOLVABLE TENSIONS

Looking back on the 5Cs frameworks I noticed several tensions that were persistent throughout the study.

How can you live in, or run a progressive school, in a society that is highly influenced by neo-liberalism? A progressive school needs to be able to articulate to its community what it does. There are times that a school's measures do not match up with the surrounding communities' expectations. This type of research assisted this school to acknowledge the tensions between parent and family expectations and the day to day delivery of a progressive education program. This research will make it possible to communicate the 'why' to families and community members more effectively and give them language to share with others who question why they are willing to pay for an education when one is available for free. Looking back at the original research questions I now wonder now if the questions are not actually more complex. Instead of:

- How can a school identify the skills necessary for thriving in the 21st Century?

Should the questions have been:

- By what process can a group of teachers grapple with the complexities of the current cultural climate to identify specific skills for jobs in a world where we are uncertain of its shape or form of?

- Is it even possible to articulate and frame language that is understood by a society that is neo-liberal?

And some of the other questions might be reframed from:

- To what extent can professional development enhance the capacity of teachers to:
 - Assess and articulate student growth in 21st Century skills?
 - Create a framework for development of 21st Century skills?

To:

- In a progressive society would we even want or need to assess individual growth or comparison in skills?

The nuance is subtle and complicated. Measurements and assessments are often presented in percentages, but is it fair, accurate, or true to say someone is 74% creative or collaborating in the top 2% of their grade level? What does that even mean? If assessment is shifted to reflection *with* rather than *on* students, would the external value or measure be necessary? This question returns us to the descriptions of CPAR and research *with* rather than *on* people (Heron & Reason, 2006). Something that seems missing from the frameworks and models represented in the literature is how to deal with this ambiguity and murky environment.

Advice for administrators and teachers who are trying to run progressive environments within a neo-liberal society. How do we bridge the different languages and approaches, while staying true to what we do, and meeting the needs and expectations of the parent community? The solution may be to carefully avoid going all the way to the neo-liberal discourse thereby undermining the principles that the school stands for.

In my role as a teacher I struggled with articulating to parents why our forms of assessment were valuable and how their children were being better served by a reflective process of feedback and goal setting. Having done this research I now see that society is being framed through a neo-liberal lens. No wonder this was

difficult! It was apparent that the other research group members grappled with the same challenge. Now as an administrator of the school, having engaged with the research literature, and having an understanding of the different paradigms that are operating, how do I now make better-informed decisions about when to embrace some of the neo-liberal language and when to push back against it?

Some of these problems are persistent, potentially unresolvable, and often hard to define. The solutions tend to produce more problems or uncover more complexity, while people with competing interests are in charge (Blackman et al., 2006; Bore & Wright, 2009; Turner & Baker, 2019). There are many ways in which education or more specifically education reform, is a persistent problem. Reflective practice is complex and requires the practitioner to be able to make changes to his or her behaviour. Often, teachers are unable to make their identified changes or adjust curricula because of constraints imposed by testing standards and schedules. Society has a penchant for holding teachers to unattainable standards and blaming them for failing students. Current education policies are based on the ideas that better test scores prove that students are being better served by their schools (Au, 2009; Hursh, 2005; Thrupp, 2018; Wagner, 2008). Yet many teacher practitioners recognize that standardised test scores do not reflect real learning or even equate to best practices in teaching and learning (Cochran-Smith & Lytle, 2009). The idea that we can provide the same quality of education by imposing strict sameness of delivery to every child, when every child is different, is bankrupt from the beginning. By offering the same, you are in fact offering a better education to some children and not to others. If the experts are continuing to argue over what real learning looks like and how to reproduce it, how can mere administrators sort through the competing philosophies to issue a regional programme of education? Not all the problems in education may be solvable, but that is not to imply that we give up, but we recognize the very nature of the spiral of the learning process. We solve one problem only to reveal another.

8.2 THE ENERGISING NATURE OF PRACTITIONER RESEARCH

The power and the potential of practitioner research were evident in this study. The research group members expressed strong feelings of empowerment and engagement as a result of the study. This was exciting because there were many times during this research that I was personally energised and inspired. It felt encouraging to be productive and part of a team who shared a common goal. The group buzzed with new ideas and enthusiasm for the work that it completed together. I felt a compunction to capture this moment and reflect on the elements that made it possible, that made it happen. It came together in a way that Dewey would recognise and appreciate. This democratic vision of education and reflection of process and output or end and means, aligns with the social constructivist language of education and development. It brought together research and practitioners who were able to decode some complex academic language into more digestible descriptions of the design of student learning and project outcomes. It was an example of an exciting collaboration. I came away from this research thinking “Wow! Couldn’t we do this more?” I am convinced it was not unique to one moment, but applicable repeatedly. These conditions that we (the research group members) created through practitioner research were significant to reaching important learning ends and nurturing and sustaining them. What I also found, when I left the group, was that the energy dropped. This may not be a devastating outcome and may even be necessary. It recognized that there are cycles of engagements and an ebb and flow of energy in practitioner research. This research revealed that practitioner research can create the essential conditions for teachers to engage in their own professional development and that energising conversation between teachers provide opportunities to improve the *sayings*, *doings* and *relatings* of those practitioners.

8.3 THE 3Ps AS A POTENTIAL TOOL

The model of the 3Ps would be a useful tool for any kind of professional development or community action involving a group of people coming together to solve a common problem. The 3Ps of Product, Process, and

Power can be used to address questions of design or structural support. They can serve as a lens or method to set up and design research, to make sure the group has spent the time to identify specific goals to work toward, and that they have a product or outcome to reach. In conversation with a colleague, he noted the usefulness of such a tool in analysing why a particular research process was unsuccessful or disheartening. He noted that in a recent project, the elements of product and process were present but once the project was completed the changes were rejected by 'higher ups' (personal communication, September 20th, 2020). This tool would have been helpful at the start of the project to identify that the three elements of product, process and power were all present and balanced. It is important that there is a structure in place, a process to follow, a way that together the group will create the products they seek. This structure could be a set of meetings, with specific times, and a decision on the style of meeting. These meetings could be open discussion, agenda driven, or focus group with an agreement on decorum and problem solving or conflict management. In designing a study, the group should reflect on the questions of power so that the individuals who have power in the project or situation have been identified. The members of the research group will have to identify what they can actually change and what power is missing to make the desired changes. These 3Ps are not particular to practitioner research. They can be applied to any PLD of teachers, education in general, or community activism. What are you trying to do? How are you trying to do it? And what power circulations exist? In the fractious times we are experiencing, many social movements have risen to the surface, and forms of activism would benefit from the outcomes of this research. If these groups want to make small or large changes in their community an understanding of the 3Ps would be beneficial. Action research has been used often in social work research and assisting marginalized groups, examining systems of power and fighting oppression (Galletta & Torre, 2019; Santos, 2016; Smith et al., 2010). Community activists can use this research as a model for addressing the changes they seek.

Closing thoughts on action research and power. There is power in uncertainty and freedom. What action research and qualitative research offer is the ability to respond to the situation in front of you. If your goal is to change something, or just do something rather than study something then it requires the capability to be responsive. This is grounded in both Biesta's (2006) and Dewey's (1938) view of education and learning as experiential and relational. Lave and Wenger (1991) describe situated learning this way, "that learners inevitably participate in communities of practitioners and that the mastery of knowledge and skill requires newcomers to move toward full participation in the sociocultural practices of a community" (p. 29). And really, isn't research learning? So therefore it is also situational. The researcher interacts with other people, with the environment and has to respond to the cultural norms of the place they conduct their research. CPAR has much to offer qualitative research that involves people, even research that is conducted *on* people rather than *with* people.

8.4 FURTHER RESEARCH IDEAS

As this cycle of the CPAR process comes to a close, the next cycle begins. It is a time for reflection and re-planning by looking closely at what was done and then make shifts in questions, design new products and goals that we can work toward. There are new questions that have arisen as a result of this research.

From this research I now have a new set of research topics:

- To what extent can CPAR enhance the capacity of teachers to:
 - Maintain a community of practice?
 - Engage the community outside the school to address common interests?
- In what ways can we reframe the 21st Century skills into a social constructivist view and align with progressive education?

A few questions linger as this study ends and a new one begins; a nagging question has continually circled my thoughts. Do we really know that teaching 21st Century skills will improve how students learn?

Student outcomes as success indicators in 21st Century teaching strategies

And so, to the elephant in the room; how do educators *know* that teaching to 21st Century skills, of communication, collaboration, creativity, critical thinking, and character lead to improvements in student outcomes? Some recent research has focused on improvements in test scores or school achievement (Cochran-Smith & Lytle, 2009; Darling-Hammond, 2006). The issue with this focus is that it does not measure how well, or how much, students are improving in the 21st Century skill set. It just means that those skills have helped (or didn't harm) students in more traditional areas. An even bigger question to ask is; what does success look like for all students? Is that even a valid question? At the moment the acceptable measurement of student success in education is limited to grades, test-scores and college admission success (Au, 2009; Darling-Hammond, 1993; Hammack, 2016). What if that view were widened, or as Biesta (2006, 2016) might put it, we reassess the aim of education. The foundation for this research is a social constructivist approach, which views students as existing within a sociocultural context and recognizes that their learning is related to the current political and social climate. Throughout the study the research group was often brought into the moment by events that interrupted our educational dialogue. The view this research supports is that those interruptions are not distractions from learning but opportunities to connect the theory to practice. This is what is actually happening in the world. How do we respond to it?

There are some schools that have been documenting student learning that reflects 21st Century skills. High Tech High and East Palo Alto Academy are two high profile schools in the USA that have focused on alternate assessments of student learning. Their assessments include portfolios, learning logs, project or gallery nights, internships, and reflective personal narratives (Darling-Hammond, 2006; Wagner, 2008). The bigger challenge is how to shift the way in which success is measured for students. Is success apparent when students are high scorers on state mandated standardized tests, or accepted into college, or enter college, or graduate from college, or are gainfully employed? Do we want all students to go to college? If

the answer is 'No', then why is the traditional focus of high school on college admissions, or acceptance? It is hard to measure things like meaningful work, happiness with one's choices, connection to society, democratic engagement, or feelings of fulfilment, but I think these are appropriate goals of more progressive institutions. Some of these goals are long term outcomes. It may take time for an individual to find their place in society and the role they want and feel comfortable fulfilling. They might try different roles, make some wrong choices and generally meander a path toward personal achievement. In my personal reflection on my experience within formal education, I think that I succeeded in spite of my experience in school, *"For me school was an irrelevant and loathsome obstacle interfering with my life"*. What kind of research would reflect a more holistic view of success in education? Obviously, these studies would need to be longitudinal and they would need to include teachers, students and past students. In order to address the complex nature of the questions and the complexity of human beings, they ought to be qualitative, or mixed methods. Quantitative measures would not be an adequate assessment of the 'why' portion of the questions that need answering. Increasing the number of teacher practitioners as researchers would substantially add to the knowledge base of educational theory (Cochran-Smith & Lytle, 2009).

Phenomenography is a research method that can be used to investigate student and teacher experiences and thoughts of teaching and learning within the progressive education paradigm of 21st Century skills (Lin & Niu, 2011; Rands & Gansemer-Topf, 2016). A focus on the remembered experience of students and teachers can place the emphasis on the present moment, rather than future outcomes. Central to the tenets of progressive education is living and experiencing in the moment, not just preparing for possible outcomes that may never happen. One of the growing areas of research in this field of education is the effects of the school environment on the emotional health of students. Many of these studies originate

from psychology departments, whilst investigation from the education department could look at curriculum design and assessment strategies to support the positive school climate.

What are some future products that could come as a result of practitioner research?

Having a defined product was found to be important in the findings, so what future products might be valuable for this team of practitioner researchers? The group had established a schedule of PLD meetings for the year following the research project, yet they did not articulate any specific products. Action research itself presents a model to be developed in further iterations of the cycles of observation, discussion and changes in practice. As Shealy (2019) and Schön (1991) have documented, professional development that is embedded in a teacher's everyday schedule is more effective. The teachers that participated in the research expressed the desire to continue the cycles of practice, reflection, dialogue and documentation in order to create a guide that could be honed over time and eventually shared with the wider education world. The research group members noted that observations would need to be included in the teaching schedule and some faculty meetings would need to be kept solely for discussion of these observations. As the research facilitator I recognize the need for a structure to focus attention on following some sort of CPAR cycle, where problems could be identified (future products), discussions kept on topic, and some form of accountability was established to report results. These results could include new curriculum documents, articles for publication, training materials, or presentations that might be suitable for teaching conferences.

One of the unaddressed problems identified by the research group was the school's current curriculum document. This could be used as the basis for a future product of a PLD project. The research group members also identified the need for continuing support from the school administration so as to maintain the structure and allow the teachers to make the programmatic changes that had been identified.

8.5 CLOSING PERSONAL REFLECTION

As this research opened with a personal reflection it is fitting that it also closes with one. What are my thoughts now on progressive education and how has this research process affected my professional life and philosophy?

The experiential learning cycle and CPAR affirm that learning is never done. During our time as a research group we participated in an important cycle that provided ample material for growth, but that growth now depends on our willingness to remain committed to the cycle of learning. Having now returned as Head of School, I can report that the faculty and the administration are indeed committed to the cycle. It was not without turmoil and some of the changes that were made have been changed yet again, but we continue to function as a group that plans, acts, reflects and changes together. The research group members continue to engage with the process, with rare exceptions, and new members of staff have merged into the process. The community of the school feels more purposeful, and the program has more documentation and an articulated plan for continued development.

In my days as a student at Goddard College pursuing a Masters, the phrase ‘trust the process’ was whispered from the lips of supervisors; a mantra. Although the end goal of that work was a thesis, a product, it was the investigation of teaching practice, the grappling with the literature, and the attempt to translate research into action and reflection that caused my growth of understanding and consequently the improvement of my teaching skills, and receptivity to future learning. A worry or concern about the direction of society is what Fullan (1993) refers to as the “moral purpose” (p. 12) for teachers. I am concerned that the immediacy of information and access to overnight delivery gives us the expectation that we should get everything now, so I worry about students who resist struggle, hardship and challenging situations. Students

(and parents) want access to straight 'A's, honors courses, AP courses, and a wealth of accolades to gain access into prestigious institutions. It is not the hard work and struggle that they seek but the reward at the end. According to my personal philosophy of learning, it is within the struggle that learning occurs. I do not know if this immediacy is linked to the social media and technology feedback loop that we currently experience but my hunch is that this is a consequence of the rapid change in information access. We expect things now and we are less willing to struggle to get those things that we want. Faced with challenge or delay, the easy solution is to abandon the mission. Students have access to all the information in the world's libraries at their fingertips, together with all the unfiltered (and unedited) or dubious information, on the same platform. How do teachers guide students to navigate in a realm that they did not experience themselves, do not participate in, or at times do not even know about? Each semester a new app or Chat Site is explained to me by a young teacher or a student. Some of the sites look dangerous and predatory and some I suspect, because I do not understand the platform. I am skeptical of 'likes' or 'getting followers', but these are the changes in society that must be faced, rather than avoided.

The essence of the research revealed through the findings are the tensions between progressive education and 21st Century skills, specifically between phronesis and techne (Carr, 1987), or in modern terms practical wisdom and technical skill (Mackenzie, 1991). Distilled further, it is knowledge and awareness of how to respond to the needs of students in the moment versus belief in the acquisition of content. It has been the lode star of my academic life, and the quest of my teaching practice, to find a balance between these two ideas. What this research indicates is that it is not so much a balance as a comfort with murkiness and ambiguity or as Mackenzie (1991) describes it a "...radically ambiguous common-sense understanding of educational practice..." (p. 153). Constantly, in practice, as an educator, I have run into situations where I needed answers to the 'why' questions of what I was doing. Parents would ask why I was not just assigning letter grades or they would question the new math they did not understand. At those moments, I felt that

my personal belief would be bolstered by a better understanding and enhanced ability to explain the technique of progressive education. At the other end, when deep in research, sifting through multiple articles, or deciphering heady reading material, I have many times stopped and thought, 'Yes, but how does this actually apply to a real classroom setting; a real moment.' My goal during the research process was to help teachers understand and improve what they do; the teachers that I know do not typically read research journals on education. I wanted to make research more accessible to teacher practitioners. I have episodes of frustration at the lack of theoretical knowledge evident in teaching practice. I wish more teachers would engage in publishing or presenting their lessons or curriculum to a wider audience, yet I can see the limited time and the burden of scheduling that confront professional development of teachers. This very conundrum and frustration keeps teacher practitioners out of research writing. Change in educational practice demands a connection between theory and practice.

This research determines that we should be asking teachers to adapt to their students. If teachers are focused on 'techne' then they will be reproducing knowledge through carefully planned out lessons. What this technical teacher may perceive as successful teaching is a quiet class, that appears on task, and is following directions. An example of lessons for teaching 21st Century skills (the 4Cs), is the use of group work or PBL. From the stance of techne, the ideal implementation is a group of students sitting at the same table with individual roles or assignments who, at the end of the class, have a product to deliver. Yet, from the stance of 'phronesis' this does not necessarily mean success. What progressive educators may actually seek is the way in which the students work out differences, solve problems, and devise a solution. From this perspective, the final product is of less value than the path or process the students took in their learning. This research posits that we should be preparing and supporting teachers to make value judgements based on a response to situations that cannot be pre-determined. The findings also revealed that the research group members in this project did have a deeper understanding of theory than they had presumed. Through

the discourse together they were able to unpack and share their interpretations of practical implementation. A challenge for practitioners is to view academic literature as important for their teaching practice. Simply because some teaching material is easy to understand and comes in clear-cut steps does not make it the most beneficial for student learning. Sometimes learning looks messy. This means we should talk less jargon and translate obscure material into words and actions that make sense to a teacher practitioner.

In this, my latest journey into academia, I feel my practical knowledge has been bolstered. I saw some areas in educational theory where this small independent school could contribute valuable material through the active participation of the teachers who participated in this research. Without the PhD process I would have continued along a path of practice but without the deeper understanding of the conflict between the neo-liberal language of assessment versus the progressive education ideals of learning through experience, which is the bedrock of serving the needs of students today.

“A man’s mind, stretched by new ideas, may never return to its original dimensions”

-Oliver Wendell Holmes Jr

EPILOGUE

Not surprisingly, the place where I now finish is very different from the place where I started. A focus on 21st Century skills seems even more important in light of both the current situation and the challenges ahead. The world has turned upside-down and created the context where we are increasingly analysing how people (and groups of people) are able to respond, adapt, be resilient, be creative, and be collaborative when they are permitted to use their full capabilities. The importance of realising these skills is now urgent because problem solving, creativity and imagining new and different possibilities is vital to addressing the current challenges. Even more important is liberating groups of educators to come together to create a better world. The research process described in this dissertation, how practitioner researchers engaged in reflective practice together, has much to contribute to the current conversation on educational change. It can be viewed as an approach for teachers to engage with for solving some of these dilemmas.

Without a doubt we are standing at a defining moment in world history, as I submit my thesis for re-evaluation. The COVID-19 pandemic has thrown politics, society and education into a new landscape. The past six months have been uncharted territory for the entire community at the school where I am currently Head. The board, teachers, parents and students have had to come together to navigate this terrain and it has been tumultuous and stressful. The research journey we traveled together has given us the skills to navigate this challenge. The pandemic has upset the proverbial apple cart, confounding prior policies, yet as the Head of School I have grasped this opportunity to reset things in a new vision of school and learning. When will we ever have this opportunity again? It is a way to let go of ‘the way things are done’ and embrace more idealistic approaches as Stringer (2007) suggests.

The approach to inquiry that I have presented may appear somewhat idealistic. Competitive social values, impersonal work practices, and authoritarian modes of control impose themselves as constant conditions of our work. Institutionalized practices—those commonly accepted as

“the way things are done”—seem so pervasive and normal that we often cannot envisage other ways of working, even when those practices are ineffective or, in some cases, detrimental to our purposes (p. 190).

The legacy of my project has continued with the research practitioners who participated in this project we are utilising the model created through our study. At our last PLD meeting we revisited the model for this school year to identify the products, process, and power circumstances for our current situation (see figure 1). The group reflected on how the teamwork that was developed in the research process had continued and increased the ability of the teachers to address the current challenges. The shift in culture has been maintained and has grown, along with their knowledge of each other’s practice. They use each other now,

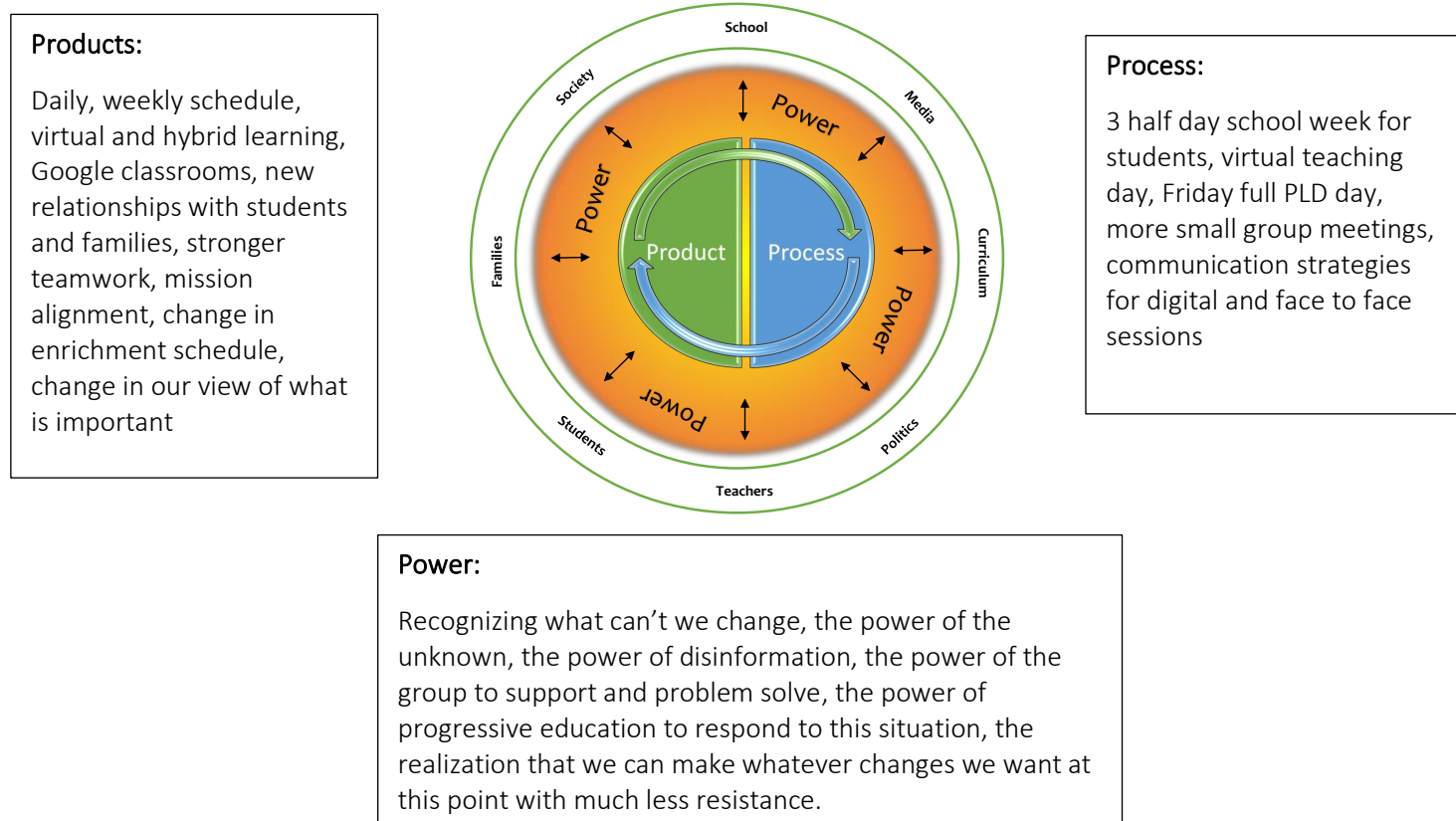


Figure 28: 3P Framework to address COVID-19

more as resources, because they opened the doors of their classrooms to each other and realized the benefits of reflecting together. As a group we have utilized the framework established in our last two PLD trainings, at the end of last school year and the beginning of this one. The group recognized the importance

of identifying the things we could change versus the unresolvable tensions that need to be evaluated and discussed. The newest member to the teaching team, who was not part of the original research has joined the reflective practice and integrated into the group. It is gratifying to see my research put to good use so soon.

The first three months of the pandemic were the hardest, when we were not meeting together regularly and had yet to make a plan to visualize the new school year, if indeed there was to be one. At that point too many issues were out of our hands. Could we have school? Would the state governor forbid in-person classes? Would parents pay for private schooling during uncertain times? There was a growing sense of dread and panic amongst the teaching staff. When talking to teachers they would voice confrontational questions. “We’re not having classes back on campus in August, are we? There is no way we can have kids playing together, is there?” There was an anxiety in their questions, and I fully understood their worry and concern about the upcoming school year. As a new Head of School, the pressure was hard to bear, and I struggled under the weight of the decisions that faced me. What if we went back to school and someone in our school community fell ill with COVID and died? What if I delayed the start of school until spring 2021? Would the school survive, or would we have to close? These decisions were not what I had signed up for. It was not a burden I could carry alone.

I called together a “COVID Response Team” that consisted of six people; myself, a board member, two teachers, our financial director who was also a parent, and a local nurse. We met monthly, outside on the playground, and began to identify our challenges and to communicate with families about the current situation. We had hoped that the summer months would see a decline in regional COVID cases and that by the fall we would be back to school as normal. But sadly, as summer proceeded, the numbers in our county continued to rise. The COVID Response Team created a set of procedures and policies for health and safety

on campus. It included keeping classes small and maintaining pods that did not intermingle. We created a new drop-off and pick up procedure, and limited visitors to campus. When I took these policies to the teaching staff, they still seemed hesitant. How do we know what families will do at home? What about the students who still can't come to campus? I approached the school governing board with my concerns and with the policies and procedures of the COIVD Response Team. "We can't go back to school full time. The teachers are nervous, and I agree with them. What we are asking them to do is herculean. I need your support as a board to make some major changes to how we do school, and I need you to trust me" (personal communication, 13th August 2020). To my great relief, the board gave me their overwhelming support and asked how I planned to make these decisions. I responded that I proposed to take the challenge to the teachers; that we collectively decide how to have both an on-campus and a virtual program; and how best to schedule our time to accomplish this.

I scheduled a teacher meeting and presented the dilemma. I explained that we need to have some kind of in-person school, and some kinds of virtual program, and we need to start before September ends. This moment allowed us to pick up the apples (from the proverbial apple cart) and place them in new locations; to rebuild the cart or discard it entirely and build a new structure, discarding the elements that were not serving our purposes. This moment has made the value of our work in the research project more relevant to practitioners. So, we gave ourselves that necessary time. It has become more important for educators to be able to ask critical questions and to make immediate changes to their practice. No one could have predicted that COVID would hit when I was beginning this research. The sudden disruption of all national school systems has given urgency to the need for creative solutions, since there is no "All wise, all knowing" head to provide answers. The theoretical framework of social constructivism used in this study recognizes the importance of context and environmental factors. The CPAR methods of practitioner researchers allowed this group of teachers the practice in articulating the problems ahead and strategizing desired

outcomes and possibilities. Now we are enjoying the consequences of this research in a COVID world and reaping the benefits and seeing first-hand the capability of staff. Here available for our needs is the social capital of the relationships that were developed through our research process that are allowing the school to be resilient in the face of adversity. We have empowered the staff to work together and take ownership of “their school” with a recognition that their task is a never-ending project.

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APPENDIX A: INFORMATION AND APPROVAL LETTERS

Information letter for teacher interviews and focus group, consent to participate form, and request letter to the Head of School, Ethical approval from UC

College of Education, Health and Human Development

Jessica FitzPatrick
Tel: +64 22 471 5391
Email: jessica.fitzpatrick@pg.canterbury.ac.nz

Information letter for teacher interviews and focus group

You are invited to participate in the research project:

'A collaborative framework for meaningful assessment and communication of 21st century skills'

This research proposal aims to fill the gap in research related to the assessment of 21st century skills (communication, collaboration, creativity and critical thinking). In collaboration with a team of teachers, I intend to develop a framework for meaningful assessment and communication of these 21st century skills.

Your involvement in this project will be to participate in four focus group interviews, observe each other's teaching practice to document the teaching and assessment of the schools stated life-skills (21st century skills), to participate in individual interviews with the me, and a final focus group to look at the application of the framework for the following school year. We will utilize the Friday afternoon teacher meeting times for the focus group meetings and individual interviews, and a few days of in-service at the conclusion of the school year, you will also be asked to observe and be observed (by a peer teacher) three times. I plan to arrive at the beginning of March and stay until the end of the school year, June 15th. The focus groups would use one Friday out of March, April and May, and teacher observations would take place at an agreed time between peers. I will also utilize a few days of in-service time in June to complete the framework, and look to see how it can be utilized for the following school year. Each week, there would be approximately an hour time commitment; in a focus group, observing or being observing, or in an individual interview with the researcher. In total, the time commitment for each participant is approximately 15-20 hours.

Type of participation	Participants	Lengths of meeting	Number of times
Focus Group	All teachers	60 - 90 minutes	4
peer observations	partnering teachers	60 - 90 minutes	3
peer debrief	partnering teachers	30 - 45 minutes	3
individual interviews	All teachers (individually)	30 - 45 minutes	3

The focus groups and interviews will be recorded. However, you may request the recording to be paused if you feel uncomfortable during the interview or focus group. I will then do my best to address the issue at hand, and you can choose to stay or leave the session. The focus group and individual interview (with me) will be transcribed and all participants will be provided with a copy of transcripts for review and approval.

Please note that participation in this study is voluntary. If you do participate, you have the right to withdraw from the study without penalty. If you withdraw, I will do my best to remove any information relating to you, provided this is practically achievable and is within two weeks of the final focus group.

Anonymity during the study will not be possible since other participants will be present during focus group sessions. However, all information gathered will be treated in strictest confidence and I will take care to ensure your anonymity in publications of the findings. All data that I collect will be securely stored in password protected computers for ten years following the study. It will then be destroyed.

The project is being carried out as part of my Ph.D. research within the College of Education, Health and Human Development under the supervision of Chris North (chris.north@canterbury.ac.nz). The results may also be reported nationally and internationally at conferences and in teaching journals. If you have any questions about the study, please contact feel free to contact me. If you have a complaint about the study, you may contact the Chair,

University of Canterbury Private Bag 4800, Christchurch 8140, New Zealand. www.canterbury.ac.nz

Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz). I will be pleased to discuss any concerns you may have about participation in the project. The project has been reviewed and approved by the University of Canterbury Human Ethics Committee.

If you agree to participate in this study, please complete the attached consent form, scan and email it back to me at the address above.

Regards
Jessica FitzPatrick

Consent Form for Focus Groups, Interviews and Peer Observations

I understand the aims and purposes of the research study "*A collaborative framework for meaningful assessment and communication of 21st century skills*" being undertaken by *Jessica FitzPatrick*.
(Please tick each box)

- ☐ I have read the information letter and understand what will be required of me if I participate in this project.
- ☐ I have read the information letter and understand that all information collected will only be accessed by the researcher and that it will be kept confidential and secure.
- ☐ I understand that I will not be identified in any presentations or publications that draw on this research.
- ☐ I understand that my participation is voluntary and I may choose to withdraw at any time.
- ☐ I understand that I can receive a report on the findings of the study. I have written my email address below for the report to be sent to.
- ☐ I understand that if I require further information I can contact Jessica FitzPatrick. If I have any complaints, I can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee. (human-ethics@canterbury.ac.nz).
- ☐ I agree to participate in this research

Full name _____

Signature _____

Date _____

Email address for report _____

Please return this consent form to the box provided.

College of Education, Health and Human Development

Jessica FitzPatrick
Tel: +64 22 471 5391
Email: jessica.fitzpatrick@pg.canterbury.ac.nz

Dear Head of School,

I am seeking permission to complete my research in your school. As you know, I am currently pursuing a PhD in Education at the University of Canterbury. My research proposal aims to fill the gap in research related to the assessment of 21st century skills. In collaboration with a team of teachers within the school, I intend to develop a framework for meaningful assessment and communication of 21st century skills. This framework will also serve as a professional development model for schools, and a way to communicate complex and sometimes elusive teaching outcomes and practices to school communities.

I am writing to get consent from you to seek permission from the core teachers to participate in the research. This will involve using several of the scheduled Friday afternoon teacher meetings, and having teachers observe and give feedback on each other's practice. I plan to arrive at the beginning of March and stay until the end of the school year. I would also like to utilize a few days of in-service time in June to complete the framework, and look to see how it can be utilized for the following school year.

Please note that participation in this study is voluntary. If you do participate, you have the right to withdraw from the study without penalty. If you withdraw, I will do my best to remove any information relating to you, provided this is practically achievable and is within two weeks of the final focus group.

Please let me know if this meets with your approval, and that I may invite the teachers to participate.

*Sincerely
Jessica FitzPatrick*



HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: 2017/57/ERHEC

21 December 2017

Jessica FitzPatrick
School of Health Sciences
UNIVERSITY OF CANTERBURY

Dear Jessica

Thank you for providing the revised documents in support of your application to the Educational Research Human Ethics Committee. I am very pleased to inform you that your research proposal "A Collaborative Framework for Meaningful Assessment and Communication of 21st Century Skills" has been granted ethical approval.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 15th December 2017.

Should circumstances relevant to this current application change you are required to reapply for ethical approval.

If you have any questions regarding this approval, please let me know.

We wish you well for your research.

Yours sincerely

pp

A handwritten signature in black ink that reads 'R. Robinson'.

Dr Patrick Shepherd
Chair
Educational Research Human Ethics Committee

Please note that ethical approval relates only to the ethical elements of the relationship between the researcher, research participants and other stakeholders. The granting of approval by the Educational Research Human Ethics Committee should not be interpreted as comment on the methodology, legality, value or any other matters relating to this research.

F E S

APPENDIX B: CURRICULUM MATERIALS PRODUCED
The 5Cs observation guides and self-reflection sheet













Critical Thinking

			
asks clarifying questions	analyses information	evaluates evidence	justifies arguments
			
transfers problem-solving skills	understands when to listen	understands when to speak	out of the box
			
draws conclusions	reflects on learning	creates new knowledge	



Creativity

			
Asking questions to understand	Responds positively	an open mind	Adjusts to conflict
			
original ideas	understands when to listen	understands when to speak	out of the box
			
imagination	works with ambiguity	treats others with dignity and respect	



Collaboration

			
Asking questions to understand others	Responds positively	negotiate diverse views	Adjusts to conflict
			
demonstrates engaged body language	understands when to listen	understands when to speak	demonstrates empathy
			
Takes responsibility for shared work	works with ambiguity	treats others with dignity and respect	

Communication

		
Active listening	Speaking clearly	Coding (modeling others minds)
		
Crafting a clear message	Identifying outcomes	Adhering to conventions
		
Conversational structure	Asking questions	showing interest
		
Writing	Choosing appropriate channels	deep "reading"
		
fluency	conversation strategies	Non-verbal
		
Decoding	Accounting for social and cultural differences	Interrupting

Character

			
Curiosity	Grit (effort)	Gratitude	Social Intelligence (Friendship)
			
Zest	Pride	optimism	courage
			
Common Sense	Patience	integrity	Caring

Self-Reflection Questions
What I did well
What I struggled with
What I will do next time

APPENDIX C: NCR TEMPLATE, PLD MEETING SCHEDULE, EQ EXAMPLES

<p style="text-align: center;">Open Horizons* 123 Education Rd, Small Town, USA Primary Grade 1-2</p> <p style="text-align: center;">“Together, all at Open Horizons* promote a lifelong love of learning through a hands-on and hearts-engaged educational environment.”</p> <table><tr><td>Student Name:</td><td>Age:</td></tr><tr><td>Teacher Name:</td><td>Conference: Winter</td></tr><tr><td></td><td>Date:</td></tr></table> <p><u>Goals:</u></p> <p><u>Projects:</u> [EXAMPLE] INVENTION CONVENTION History of engineering and innovation in my classroom, town, state and country. Objectives: 1. To recognize inventions in our classroom (LE) and in the world at large (UE) 2. To recognize the benefits/disadvantages of modern inventions on humans, animals, and the natural world 3. To collaborate, solve problems, and think critically with peers 4. To learn that trial and error is integral to the creative process 5. To recognize the importance of the process --- it's just as important as the final product! (weekly conferences)</p> <p>Essential questions to accompany block: What is an invention? What makes an invention valuable? Why do people invent things? (“Necessity is the mother of invention... and creativity is the father”) Who invents things, and how?</p> <p><u>Competencies and Deliverables:</u> Daily journaling Design something they can make Work with a budget Be able to communicate / present their plan to adults/peers Weekly conferences with teacher for the purpose of troubleshooting, support, accountability, etc.</p> <p><u>Math:</u></p> <p><u>Science:</u></p>		Student Name:	Age:	Teacher Name:	Conference: Winter		Date:
Student Name:	Age:						
Teacher Name:	Conference: Winter						
	Date:						

Language Arts:


Enrichment Teachers


- Spanish:


- Music:


- Sign Language:

 Communication:

 Collaboration:

 Creativity:

 Critical Thinking:

 Character:

- | | |
|---|--|
| <input type="checkbox"/> Integrity | <input type="checkbox"/> Problem-Solving |
| <input type="checkbox"/> Initiative | <input type="checkbox"/> Responsibility |
| <input type="checkbox"/> Flexibility | <input type="checkbox"/> Patience |
| <input type="checkbox"/> Perseverance | <input type="checkbox"/> Friendship |
| <input type="checkbox"/> Organization | <input type="checkbox"/> Curiosity |
| <input type="checkbox"/> Sense of Humor | <input type="checkbox"/> Caring |
| <input type="checkbox"/> Effort | <input type="checkbox"/> Courage |
| <input type="checkbox"/> Common Sense | <input type="checkbox"/> Pride |

[Insert narrative of character traits]

FRIDAY TEACHER MEETING SCHEDULE

SEPTEMBER 07, 2018

- Celebrating last night's first APT meeting
- Camping meeting (camping coordinator)
- Parking
- Devices
- Goal setting conference
- How are we doing with formatting?
- How are we including the students in assessments?
- How are we including the 5Cs in our planning?
- Areas of concern

SEPTEMBER 14, 2018

NO SCHOOL (Conferences)

SEPTEMBER 21, 2018

SCHEDULING/INTEGRATION

- How are enrichments going?
- How well are we doing with arts integration?
- Camping- is it sorted?

SEPTEMBER 28, 2018

HARVEST PARTY

- What are we doing?

PARKING LOT

- Who's doing what?
- Where is the money going?

OCTOBER 05, 2018

OBSERVATIONS

- Who's observing whom?
- How's it going?

NOVEMBER 02, 2018

NO SCHOOL (Fall Break)

NOVEMBER 09, 2018

HOLIDAY PROGRAM

- What are we doing?

- How do the skits reflect the semester's learning?

NOVEMBER 16, 2018

OBSERVATIONS

- Share/discuss observations
- Who are we observing next?

NOVEMBER 23, 2018

THANKSGIVING BREAK

NOVEMBER 30, 2018

CONFERENCE REPORTS

- How are we doing?
- How are we including students in assessments?
- How are the 5Cs working in our classrooms?
- What needs to be included in this report?

DECEMBER 07, 2018

HOLIDAY PROGRAM

- How's it going?
- Anything to troubleshoot?
- What is the schedule?

DECEMBER 14, 2018

SEMESTER REFLECTION

- What went well?
- What do we want to improve upon (or do) in the coming semester?
- Who's doing January PD presentation? Topic?

JANUARY 04, 2019

CAMPING/TRAVEL

- Where are we going?
- How are we developing journals?
- Upper Level discuss fundraising/planning
- UE/LE discuss camping logistics/planning

FRIDAY TEACHER MEETING SCHEDULE

JANUARY 11, 2019

SINGING VALENTINE

- What's the plan?

- Follow up

- What's the plan?

JANUARY 18, 2019

SCHEDULING/INTEGRATION

- How is the schedule working?
- How are we doing with integration?

MARCH 15, 2019

MARCH 22, 2019

SPRING BREAK

JANUARY 25, 2019

MARCH MARKET

MARCH 29, 2019

APRIL 05, 2019

FEBRUARY 01, 2019

CONFERENCE REPORTS

- How are we doing?
- How are we including students in assessments?
- How are the 5Cs working in our classrooms?
- What needs to be included in this report?

APRIL 12, 2019

APRIL 19, 2019

APRIL 26, 2019

MAY 03, 2019

IN-SERVICE

- Schedule?
- Agenda?

FEBRUARY 8, 2019

SCHOOL-WIDE SUMMIT

- How to implement?

CAMPING/TRAVEL

- Where are we going?
- How are we developing journals?
- Upper Level discuss fundraising
- UE/LE discuss camping logistics/planning

FEBRUARY 15, 2019

OBSERVATIONS

- Share/discuss
- Who's observing whom?

FEBRUARY 22, 2019

MARCH MARKET

- What's the plan?
- How can we help?

MARCH 01, 2019

CAMPING/TRAVEL

- Update
- Troubleshoot (if needed)

MARCH 08, 2019

SCHOOL-WIDE SUMMIT

June 13th 2018

What are the essential Questions for each area?

Trust the process

Develop a list of EQs for your class

Themes and essential questions:

- What is my role in _____?
- Why is _____ important?
- Who cares?
- Why should I care?

5Cs:

- Communication
 - Why is communication important?
 - Who
 - What
- Collaboration
 - Why is _____ important?
 - Who
 - What
- Creativity
 - Why is _____ important?
 - Who
 - What
- Critical thinking
 - Why is _____ important?
 - Who
 - What
- Character
 - Why is _____ important?
 - Who
 - What

Academic Areas:

- Language arts
 - Why is _____ important?
 - Who
 - What

June 13th 2018

- Math
 - Why is _____ important?
 - How can I prove I have the right answer?
 - When are there two right answers?
 - Who
 - What

- Science
 - Why is _____ important?
 - Who
 - What

- Social Studies
 - Why is _____ important?
 - Why do people move?
 - Why do towns develop?
 - Why are there no street lights in out town?
 - Who
 - What

APPENDIX D: IN-SERVICE SCHEDULE

Time	Monday 4	Tuesday 5	Wednesday 6	Thursday 7	Friday 8
9:00 AM	Get conferences mailed	Research Group: Individual interview schedule for the week Class groupings Room changes Problem solving	Presentations with a partner for the topics of: Camping, Travel Program, Math, Art/Music integration	Research Group: Focus Group presentations: 4Cs and Life Skill integration Conference reports (lang) Classroom visits/peer support	Presentations with a partner for the topics of: Curriculum, A+ training, integration, Yoga
10:00 AM	Research Group: Writing Activity: Reflection of the year: What did we do well? What improvements do we want to make? Areas for concern Personal goals	Research Group: Focus group reflections Thoughts on the process How many Cs?			
11:00 AM	Research Group: Group sharing of reflections Defining aims for the week		Brainstorming the enrichment schedule, class sizes and groupings	Rough draft of enrichment schedule and classroom visits/peer support	Technology needs/sharing Defining the needs/adjustments for next weeks schedule
12:00	Lunch		Lunch		Lunch
1:00 PM	Breakout with a partner for the topics of: Camping Travel Program, Math, Art/Music integration	Research Group: Breakout with a partner for the topics of: 4Cs and Life Skills, integration, Conference reports (lang) Classroom visits/peer support	Breakout with a partner for the topics of: Curriculum - 2 year loop A+ training integration Yoga /PE	Faculty Handbook	
Time	Monday 11	Tuesday 12	Wednesday 13	Thursday 14	Friday 15
9:00 AM	Research Group: Focus Group defining a framework, professional development goals, and writing about the process (documentation)	Research Group: Essential Questions and curriculum work	Research Group: Presentations with a partner for the topics of: Integration of academic areas Project based learning Assessment of group work/projects	Prepare for summer camp	Prepare for summer camp
10:00 AM	Research Group: Group sharing of reflections Defining aims for the week				
11:00 AM	Research Group: Teacher meetings Office design Paperwork and procedures	ISAACs planning	Discussion of: Classroom design Centers Team teaching/ block classes		
12:00	Lunch		Lunch		Lunch
1:00 PM	Research Group: Breakout with a partner for the topics of: Integration of academic areas Project based learning Assessment of group work/projects				

APPENDIX E: UPPER SCHOOL NCR ADDITIONS

Conference expectations for students

1. Complete individual questions found below to the best of your ability.
2. Engage in teacher student interviews to the best of your ability.
3. Create or update your student portfolio with sections for each block and examples of work including as much enrichment work as possible

Individual written responses:

1. Which blocks did you engage with and describe how you engaged with those blocks?
2. What was the importance of each block?
3. Which blocks challenged you and describe how?
4. What could you have done differently to increase your engagement?
5. What could your teacher have done differently to increase your engagement?
6. What are some things you are proud of from this semester so far?
7. How have you grown personally this year?
8. What are some projects or artefacts from this semester you enjoyed and why?
9. How original were your ideas and work?
10. Discuss your strengths and struggles in math class this year.
11. Highlight each enrichment you are a part of- what have you enjoyed or struggled with in each enrichment (music, art, wood shop, cooking, dance) Strengths, challenges and future plans

Interview Questions:

1. How did the Blocks challenge you?
2. In what ways did blocks engage you?
3. What do you feel was the depth of your investment in your work?
4. Did you have any social challenges this semester?
5. When others were talking, were you listening and engaged?
6. When you were talking, do you feel you were articulate and purposeful with your words?
7. Were you supportive of your classmates during group activities?
8. How well do you work with others?
9. What are some things that we can do to improve your academic experience at school?
10. What are some of the reasons you chose to come to Open Horizon